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DOCTOR OF PHILOSOPHY

**Power and organisational change
a case study**

Carvalho Oliveira, Joao Pedro F. F.

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Joao Pedro F. F. Carvalho Oliveira

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POWER AND ORGANISATIONAL CHANGE: A CASE STUDY

**JOÃO PEDRO F. F.
CARVALHO OLIVEIRA**

A thesis submitted to the University of Dundee for the Degree of Doctor of Philosophy
in the School of Accounting and Finance.

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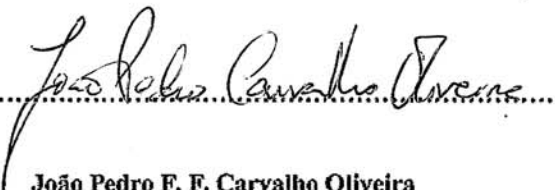
Many reasons underlie special thanks to João Ribeiro. He was my internal liaison with my Faculty during the PhD period. He facilitated the combination of full-time teaching with the PhD write-up, over the last two years, by thoughtful assignment of teaching responsibilities. Finally, he provided countless opportunities for always enlightening discussions – and even provided a suggestion for the development of the theoretical framework we both drew on in our theses. Thanks also go to Sirle Bürkland and Martin Quinn for their comments, discussions and overall support.

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Finally, the most important acknowledgements. To my family – my wife Mónica, my daughters Beatriz and Inês and my parents (with a special acknowledgment for my mother's transcribing and reviewing assistance) – and to God.

DECLARATION

I hereby declare that I am the author of this thesis, that the work of which this thesis is a record of has been done by myself, and that it has not previously been accepted for a higher degree.

Signed: 

João Pedro F. F. Carvalho Oliveira

Date: ... 20 October 2010

CERTIFICATE

We certify that João Oliveira has worked the equivalent of nine terms on this research, and that the conditions of the relevant ordinance and regulation have been fulfilled.

Signed: 

Professor John Burns

Date: ... 20 October 2010

Signed: 

Professor William Nixon

Date: ... 19 October 2010

LIST OF ABBREVIATIONS AND EXPLANATIONS

BOM	Bill of Materials
CC	Corporate Centre
Country C	One particular country where the case study organisation has production facilities
ERP	Enterprise Resource Planning system
IDAR	Investment budgeting and monitoring solution
IndCo	Acronym for ‘Industrial Company’, the fictitious name of the case study organisation
IS	Information System
IT	Information Technology
ITC	Acronym for ‘Information Technology Consultancy’, the fictitious name of the consultancy firm participating in the research
IXOS	Document management solution
HFM	Hyperion Financial Management (consolidation software solution)
MAC	Management accounting and control
Mr. A	The chairman and majority shareholder of the case study organisation
Mr. X / Mr. Y / Mr. Z	Any anonymised individual (in quotations from interviews). All cases referred to males.
NIS	New Institutional Sociology
PROLOG	Legacy, in-house developed application for production planning
OIE	Old Institutional Economics
OPP	Obligatory Passage Point
SAP	Market leader in ERP solutions
SAP APO	SAP Advanced Planning and Optimizer module
SAP CO-PC	SAP Controlling – Product Costing module
SAP FI	SAP Financials module
SAP HR	SAP Human Resources Module
SAP MM	SAP Materials Management module
SAP PP	SAP Production Planning module
SAP SD	SAP Sales and Distribution module
SOIC	Legacy, in-house developed application for logistic operations
SSC	Shared Services Centre

ABSTRACT

This thesis reports the results of a case study conducted in a Portuguese manufacturing organisation, a part of a large group, which endured profound organisational changes. The initial objective of the research was to explore, in a processual way, the long-term interactions between an Enterprise Resource Planning (ERP) system, the consultants that implemented it and management accounting and control, in this organisation. However, during the fieldwork, the researcher was confronted with an apparent *puzzle*: in the past, formally powerful ‘central’ actors had been confronted with important limitations – including in their relations with formally less powerful actors, particularly ‘local’ actors at the plant level. At the time of the fieldwork, however, the situation had substantially changed. The researcher was therefore confronted with a puzzle, which seemed to be about the distribution of *power* in the organisation, about *who* the powerful actors were and, more fundamentally, *what caused* (or limited) *actors’ relational power*.

Three innovations introduced by central actors appeared to have played an important role in this fundamental change in the organisation and in the distribution of power within it. At stake were a technological innovation – the adoption of the financial module of an ERP system (SAP FI) – and two organisational innovations: the relocation of the Corporate Centre (CC); and the creation of a Shared Services Centre (SSC), in the same location of the group headquarters and of the Chairman and majority shareholder.

Clegg’s (1989) framework of ‘Circuits of Power’, based on a Foucauldian and Actor-Network Theory (ANT) approach, was drawn upon as interpretive lenses to

address the empirical puzzle about power. The researcher's mobilisation of the framework facilitated the understanding of *what caused* (or limited) *actors' relational power*, not only in the past but, particularly, at the time of the fieldwork, when the on-going repercussions of the three innovations were taking place. Such in-depth understanding was constructed through a qualitative, interpretive and processual research, adopting the method of an explanatory case study combining both retrospective and longitudinal components. During the three-year' fieldwork, 54 interviews with 29 respondents, lasting more than 90 hours, were supplemented by other information generating techniques, such as documentation analysis and observation of meetings, presentations and artefacts in numerous socio-technical interactions.

The researcher's interpretation of the case study insights highlighted that the previous power limitations perceived by the formally powerful, 'central' actors could be traced to characteristics of the circuit of social integration (rules of meaning and membership across the organisation, as interpreted, accepted and enacted by actors) and of the circuit of system integration (techniques of discipline and production). The three technical and organisational innovations – SAP FI, the CC and the SSC - introduced by central actors in the circuit of system integration (conceptualised, in ANT terms, as non-human and collective actors, respectively) had significant repercussions across the various circuits of power. These repercussions had a structural nature, since the innovations collectively succeeded in giving rise to a network of complementary, mutually dependent and mutually reinforcing Obligatory Passage Points. The emerging network of Obligatory Passage Points was essential in promoting the introduction, interpretation, acceptance and enactment of rules across the organisation as desired by central actors.

This thesis proposes several contributions concerning the repercussions of the collective of innovations across the circuits of power. Some examples are embedding rules in technology (Volkoff *et al.*, 2007) and organisational processes, redefining the scope of agencies, creating non-zero sum outcomes, and the emergence of the perception of control inevitability and naturalness within organisational normalcy. Collectively, these innovations promoted rules enactment (by both human and non-human actors) in ways that benefited the interests of central actors.

In addition, this thesis proposes contributions related with the two theoretical frameworks and literatures framing the research. It proposes several refinements to Clegg's (1989) framework, comprising changes in its graphical layout, linkages and even concepts. The second contribution is an ANT-inspired, OIE model of rule-based action. This model draws on Burns and Scapens' (2000) macro structure and concepts, but it proposes additional structures and substantially different perspectives, mechanisms and even concepts. It adopts a wide definition of rules, also viewing them as *internal* structures orienting actors. Thus defined, rules underlie routines and fill a gap in routines-focused frameworks – in particular, when there are no established routines as regards particular issues. The model acknowledges intra-organisational diversity and focuses on the processes of introduction, interpretation, acceptance and enactment of *rules*. It also relates rules with material conditions, in particular since rules may be technologically and organisationally embedded. Finally, the model highlights that rules may be enacted by both human actors (individual and collective) and non-human actors. The model provides a novel way to conceptualise how actors' interests may be achieved through the various intersections between rules and material conditions, and by the ultimate enactment of rules by both human and non-human actors.

CHAPTER 1 - INTRODUCTION

1.1 THEORETICAL AND EMPIRICAL RESEARCH OPTIONS – SETTING THE SCENE

This thesis developed out of the goal to contribute to a research programme towards an in-depth understanding of organisational dynamics, by researching particular organisations. Organisational change has consistently remained as a central concern among both academics and practitioners, and a topic characterised by complex, opposing and paradoxical interplays. External and internal pressures towards change (or stability, or a combination of both) become enmeshed within particular organisational settings. Localised and idiosyncratic processes continuously unfold and entangle a wide range of actors, whose preferences, interests, actions and power - and indeed the very nature of those actors – remain controversial topics across numerous research streams.

This research intends to provide a contribution to the very wide field of organisational change, by focusing on a particular topic: *power* – and, specifically, *how the power of actors across a particular organisation had changed during the previous two decades*. Such was not, however, the original research topic. This first section introduces this thesis, by providing a brief account of the research process and how the research topic and theoretical frameworks emerged, within a flexible research strategy. Then, the second section states the research objectives and the third section outlines the structure of the thesis.

This research was initially designed to explore, in a processual way, the long-term interactions between an Enterprise Resource Planning (ERP) system, the

consultants that implemented it and management accounting and control, in a particular organisation. Vast research has highlighted the complex repercussions of *ERPs* in organisations, including in the management accounting and control area (see Ribeiro and Oliveira, 2009 for a review, and Benders *et al.*, 2006; Caglio, 2003; Chapman, 2005; Dechow and Mouritsen, 2005; Dillard *et al.*, 2005; Quattrone and Hopper, 2005; Rautiainen, 2009; Scapens and Jazayeri, 2003 for examples of processual research drawing from various theoretical lenses). In addition, the potential long time lag of *ERPs* in producing effects (in organisations and in the management accounting and control area) had also been suggested (Granlund and Malmi, 2002), leading to the awareness that research on *ERPs* should consider of a *long-term* perspective.

Consultancy has also been attracting increasing attention (e.g., Pellegrinelli, 2002; see contributions in Buono, 2004a, in Clark and Finchan, 2002 and in the special issue introduced by Sturdy *et al.*, 2009). The literature proposes very distinct perspectives on the impact of consultancy on organisations (e.g., the functionalist and critical strands, as identified in Hellgren *et al.*, 2004). However, there is agreement that consultants are typically unavoidable, in various degrees and areas, to implement *ERPs* in organisations (Boonstra, 2006; Fahy, 2001; Ko *et al.*, 2005; Koh *et al.*, 2009). Consultancy and *ERPs* also share a characteristic that highlights the relevance of studying these topics: both are multi-billion euros industries (Buono, 2004b; Wickramasinghe, 2008).

Therefore, an in-depth, processual, case-based research focusing on the intersection of the three areas, and with a particular concern on the *long-term* interactions, seemed relevant, innovative and timely (see subsection 4.1.3 for more details).

From a theoretical perspective, institutional theory, and Old-Institutional Economics (OIE) in particular, has been promisingly used to research change in management accounting and control and, in general, organisational change within particular organisational settings. The OIE perspective has also been used to explore how external factors can affect organisations, taking into consideration their particular contexts and characteristics. Therefore, initial research efforts were shaped by an OIE perspective, and in particular by the OIE-framework of Burns and Scapens (2000). According to such view, the introduction of an ERP system and the consultants' intervention were conceptualised as “‘external’ changes” (Burns and Scapens, p. 10), i.e., external factors *potentially* promoting organisational change. However, no technological determinism (Markus and Robey, 1988) was implicit in this preliminary empirical conceptualisation and starting point, since organisational repercussions were anticipated to be highly influenced by the specific context and characteristics of the particular empirical setting to be researched.

Consistently with the concern about considering specific characteristics of particular organisations and the need to develop an in-depth understanding and a processual view of organisational changes, this study adopted an interpretive methodology and, consistent with this, a qualitative approach and, in particular, opted for an explanatory case study (Scapens, 1990; Yin, 2009). In order to suit the research objective, the key criterion for selecting the case organisation was having had implemented an ERP system in the financial area with the assistance of consultants for a significant number of years. A large Portuguese manufacturing organisation, anonymised as ‘IndCo’, with an industrial presence in several countries and part of a wider group, was selected (see details of the selection process in chapter 4). In 1999,

this organisation had implemented accounting functionalities from the ERP market leader SAP (SAP FI), with the assistance of external consultants. When the fieldwork started in 2005, it was still on an on-going process of designing and implementing additional SAP modules. Therefore, the empirical setting seemed to be particularly adequate to investigate the research question. The fieldwork focused on the long-term interactions between the ERP, consultants and the management accounting and control area, exploring the (mostly intra-organisational and intra-group) context in which repercussions of the external factors unfolded. Given the ambition of constructing a holistic understanding of the case, a wide range of topics related with the research question were also approached during the fieldwork.

However, an interview with a senior respondent triggered a profound reflection on what came to be considered an empirically fundamental, and also theoretically relevant, aspect of the *long-term* evolution in this organisation: how the *power* of actors across the organisation had changed over the previous two decades. The trigger to the research refocus was this respondent's account about the motivations to 'create' a Corporate Centre (CC) in Portugal, approximately at the same time the SAP project started and a large international acquisition was carried out (see section 6.2). This respondent stressed that this change in the organisational structure was far more than a 'rational' consequence of IndCo becoming significantly larger. The CC, more than being 'created', was *relocated* from Spain (where it had been for the previous five years) to Portugal - near the location of IndCo's group headquarters and of IndCo's chairman and majority shareholder (anonymously referred to as 'Mr. A'). This organisational change, according to the interpretation of this senior respondent, was justified because...

“If IndCo’s Corporate Centre is in Madrid, [Mr. A’s] capacity to intervene is more limited (...) [The CC relocation is above all justified] from the shareholder point of view. ‘I am a Portuguese company, I don’t want to be a Spanish company, and therefore I don’t want my decision centre in Spain, I want my decision centre in Portugal.’ (...) The rest, the concept [underlying the Corporate Centre] was exactly the same.”

Reflection upon this respondent’s account recalled insights from previous interviews, in a wide exercise to “reconnect the dots (...) looking backwards” (Jobs, 2005) to previous empirical insights. This reflection highlighted how several technological and organisational innovations addressed particular limitations of key ‘central’ organisational actors (see chapter 4, page 262 and following, for a discussion of the classification of ‘central’ and ‘local’ actors), such as Mr. A and other high-level actors. In fact, looking further back in time, many previous respondents highlighted that, by the end of the 1990’s, ‘*central*’, formally powerful actors were confronted with power limitations – including in their relations with ‘*local*’, less formally powerful actors, situated in subsidiaries and, in particular, at a plant level. This apparent paradox gave rise to the pertinent question “Who *are* the powerful?” (Seal, 2003, 95, emphasis in the original), which, as Seal (2003) and Clegg (1989) stressed, entails the additional question ‘*What causes* (or limits) power?’.

The topic of power had already surfaced during previous fieldwork, but had not been given a major emphasis given the previous definition of a different research topic. The researcher was well aware of the existence of a large body of literature on the topic of power, particularly since some institutional literature establishes links with the literature on power and even includes such topic in its research (e.g., Burns, 2000; Ribeiro, 2003; see DiMaggio and Powell’s, 1991a, review). However, given the previously defined research topic, major attention had not been devoted to this area. Conceptualising the emerging topic of power therefore required an additional review of

the literature, on a long-standing, complex topic characterised by highly disparate positions (see chapter 3).

Clegg's (1989) framework of 'Circuits of Power', drawing mostly on Foucault (1975/1977, 1980 and 1988) and Actor-Network Theory (ANT), emerged of the new stage of literature review as particularly adequate theoretical lenses (see subsection 4.1.4 for a discussion on the adoption of multiple research streams). Clegg's (1989) framework had already been deployed in conjunction with an OIE framework (Ribeiro, 2003) and it was perceived as having potential to explain change and fixity of power(s) across the *heterogeneous organisation network* – or, in ANT terms, across the actor-network (see chapter 3).

Clegg's (1989) framework conceptualises *rules of meaning* and *membership* as shaping the power that flows through the circuit of *social* integration, influencing actors' dispositions and behaviour (in line with an OIE perspective). In turn, technological and organisational innovations (such as SAP FI, the CC and the Shared Services Centre - SSC) are conceptualised as *material conditions* (or *techniques of discipline* and *production*) which influence the power flowing through the circuit of *system* integration. The two circuits are related and have a structural nature, i.e., they have the potential to structurally (yet always contingently and temporarily) fix powers across the organisational network and its participants. Together, these circuits structurally influence the *episodic* circuit of particular relations between actors (at the realm of action, in Burns and Scapens', 2000 terminology). Clegg's framework therefore provided an explanation of why power did not seem to reside *intrinsically* and *independently* in any particular actor, and why power was mostly *relational*.

A re-examination of previous fieldwork insights (and subsequent substantial fieldwork – see page 205 in subsection 4.1.4 for details), in particular by adopting Clegg’s framework, suggested that perceived limitations in central actors’ power until the late 1990’s had two main types of causes. First, limitations derived from shortcomings of extant *techniques*, in Clegg’s (1989) broad sense of techniques. Shortcomings in (or even absence of) information systems and organisational structures supporting visibility across the company limited central actors’ knowledge and reduced their capacity to effectively intervene. Second, limitations also derived from accepted and enacted *rules*, which sometimes (but in important ways) favoured the interests of local actors, rather than central actors’ interests (see chapter 5).

In turn, the interpretation of fieldwork insights highlighted that several technological and organisational innovations, introduced between 1998 and 2002, addressed various causes of the limitations perceived by central actors. The introduction of SAP FI was an important *technological* innovation in the accounting area, promoting the adoption of similar accounting structures and rules. The *relocation* of the Corporate Centre was an *organisational* innovation with a main purpose to develop an organisation-wide view, with important benefits to central decision-making and control processes. Finally, the creation of a Shared Services Centre (SSC), in 2000-2001, also had various and important repercussions, such as promoting greater uniformity in rules and obtaining, at the organisational centre, more comparable, reliable and timely information from across the organisation (see chapters 6 and 7).

Rules therefore seemed to be a relevant factor, both empirically (considering the interpretation of the empirical setting) and theoretically (considering Clegg’s framework). Importantly, *rules* are also an important component of OIE (Burns and

Scapens, 2000; Coad and Herbert, 2009; Hodgson, 2006). In addition, some literature suggests that “[p]ower and politics is (...) integral to any OIE-grounded explanation of life’s ongoing processes” (Burns, 2000a, p. 571) (although the political nature of OIE is insufficiently justified, as argued in subsection 2.4.3). Therefore, the continuing adoption of OIE as theoretical lenses to interpret and make sense of the study was not challenged by the new research concern with *power*, not least because rules are precisely the major connection between the two frameworks.

In a nutshell, the PhD project substantially changed. First, it adopted a new research concern (power). Second, it adopted additional theoretical lenses, since Foucauldian and ANT approaches underlying Clegg’s model joined the previous OIE approach underlying Burns and Scapens’ model. Finally, and consequently, new research objectives and questions were adopted.

It should be clearly acknowledged that, during the case study analysis (chapters 5, 6 and 7), Clegg’s framework about power and its Foucauldian and ANT underpinnings were drawn upon incommensurably more often and more substantially than Burns and Scapens’ OIE framework. This was an inevitable consequence of making power the major research concern of this work. However, OIE concepts were preserved and in chapter 8 *both* perspectives were combined in an ANT-inspired OIE model.

1.2 RESEARCH OBJECTIVES

This thesis has three explanatory objectives related with the empirical setting where the fieldwork took place. In spite of this close relation with the empirical setting,

the objectives have a strong theoretical component, as well. In addition, this thesis has two wider theoretical research objectives, related with the development of OIE and Clegg's (1989) framework of power. Each type of research objective is briefly discussed next (they are also discussed within the context of the overall research design, in page 207 and following, in subsection 4.1.4)

1.2.1 EMPIRICS-RELATED RESEARCH OBJECTIVES

The three explanatory objectives related with the case study empirical setting intend to provide a holistic and in-depth explanation of *why* formally powerful, central actors were confronted with power limitations and *how* they overcame those limitations and increased their relational power within the organisational actor-network. Such overall explanation is intrinsically committed with a processual perspective, in particular because these shifts in power networks spanned across multiple, long-term processes, and involved a multitude of interrelated factors. Each research objective focuses on a particular stage of the change process – although these stages are largely overlapping. Each research objective corresponds to an element of the organisational narrative, which Czarniawska (1998, p. 2) suggested should comprise “at least three elements: an original state of affairs, an action or an event, and the consequent state of affairs”. In a very succinct way, the first research objective characterises the perceived limitations of central actors; the second objective explores why and how central actors introduced the three innovations (SAP FI, the CC and the SSC); and the third objective focuses on how the innovations in the circuit of system integration influenced rule acceptance and enactment and hence benefited central actors. Each objective is now discussed.

The first objective is tackled in the first part of the case study, in *chapter 5*. By explaining *why* some formally powerful, central actors at the case study organisation were confronted with power limitations, this chapter highlights that power issues were indeed relevant in the case study company and justifies the empirical relevance of the chosen research topic. In addition, it sets the background to contextualise the ensuing organisational changes, by describing the *original state of affairs* as the first element of the case study narrative (Czarniawska, 1998). From a theoretical perspective, chapter 5 highlights the need to adopt an adequate theoretical framework to research power. In addition, by identifying that an important cause of those limitations concerned *rules*, this chapter also highlights the continuing relevance of the OIE framework, given its concern with rules (Hodgson, 2006). Therefore, the research objective addressed in *chapter 5* is the following:

1) Explain why formally powerful, central actors at the case study organisation were confronted with power limitations.

The second objective, analysed in *chapter 6*, is to understand why and how some central actors introduced and mobilised technological and organisational innovations (in particular, SAP FI, the CC and the SSC). This corresponds to the *action or event*, as the second element of the case study narrative. These innovations are conceptualised as innovations introduced in the circuit of system integration of the case study organisation. Particular attention was devoted to understanding how the innovations were *expected* to address central actors' limitations and objectives, in particular (but not exclusively) by influencing accepted and enacted rules. Therefore, the objective of chapter 6 is the following:

2) Explain why and how central actors introduced and mobilised technological and organisational innovations.

Chapter 7 deals with the third empirics-related objective and analyses multiple, *ex-post repercussions* of the three innovations, extending the empirical timeframe until the time of the fieldwork. This chapter addresses the *consequent state of affairs* as the third and final element of the case study narrative. There was a particular concern in exploring how influencing accepted and enacted rules was crucial to achieve central actors' objectives. Therefore, the objective of chapter 7 is the following:

3) Explain how technological and organisational innovations influenced rule acceptance and enactment and increased the power of central actors.

1.2.2 THEORY DEVELOPMENT RESEARCH OBJECTIVES

In addition to the above objectives, which directly concern the specific empirical setting under investigation, the thesis also addressed two main objectives concerning theoretical developments contributing to a wider research programme (Scapens, 1990). In particular, this work aims to contribute to the two areas of the literature and the two frameworks underlying this work: literature on power - and Clegg (1989)'s framework in particular; and OIE literature - and Burns and Scapens' (2000) framework in particular.

Clegg's (1989) framework was proposed over two decades ago. Although substantial empirical research has already deployed the framework (see references in subsection 3.5.1), no substantial developments have yet been proposed (see Schram,

1991 for a globally favourable critique of the book). The scarce adaptations of the framework found in the literature have been mostly simplifications or mere modifications, especially in graphical terms, without constituting actual theoretical developments (see subsection 8.1.1). No substantive suggestions for improvements or overcoming of eventual shortcomings have been provided and, in a recent publication, Clegg *et al.* (2006) proposed the original framework again.

However, intensively and extensively deploying Clegg's (1989) framework as theoretical lenses to interpret and make sense of the empirical material and to structure the case study write-up, contributed to highlighting that some concepts and relationships depicted in the framework could be clarified, completed and even changed. Therefore, a first research objective came to be to...

1) Contribute to the power literature by developing Clegg's (1989) framework

Second, right from the start, this thesis had the ambition to develop the starting theoretical framework of this study, proposed by Burns and Scapens (2000), and OIE in general. Burns and Scapens called for "longitudinal studies within individual organizations" to understand organisational change processes and potentially developing their own framework, proposed as a "starting point" (p. 13). Many researchers have responded to that call (see references in section 2.2) and this work intended to participate in such a research programme, by adopting the objective to...

2) Contribute to the Old Institutional Economics literature by developing Burns and Scapens' (2000) framework

Over the last decade, much OIE research (inspired by seminal calls such as Scapens, 1994, and in particular by Burns and Scapens, 2000) focused on cases of resistance and continuity, or a mixture of resistance and change (most references above are representative of such trend; see also Johansson and Siverbo, 2009). Somewhat paradoxically, much research on change was actually research on *lack* of change, on stability and resistance to change, on small, gradual and slow changes. A focus on stability is understandable, considering that institutional theory is particularly suited to explain stability. However, this focus fuelled the general, long-standing criticism that institutional theory (including its OIE perspective) has had difficulties in explaining change and that it has overemphasised the influence of constraining structures over actors and agency (e.g., Burns and Baldvinsdottir, 2005; DiMaggio and Powell, 1991a; Droege and Johnson, 2007; Holm, 1995). While empirical settings of *lack of* change can facilitate an in-depth analysis based on OIE, they have less potential to contribute to the expansion of OIE as explanatory lenses. In addition, Johansson and Siverbo (2009) made a case that the evolutionary approach that underpins this research program can, and should be, “developed beyond the general belief that it describes only small and gradual, often slow, changes” (p. 147).

Therefore, studies explaining ‘*successful*’ change are particularly necessary - even though they are unlikely to be (or, actually, especially if they are not) ‘linear’ and unproblematic change processes. ‘Successful’ change processes are the most favourable empirical setting to challenge the limits of OIE and hence expand the boundaries and explanatory reach of OIE. Indeed, recent papers have identified this gap and tried to address it (e.g., Burns and Baldvinsdottir, 2005; Burns *et al.*, 2003; Busco *et al.*, 2006; Ribeiro and Scapens, 2006; see also Johansson and Siverbo, 2009). The present work

contributes to such a line of research by investigating a case of ‘*successful*’ change (i.e., in which change *did* occur).

1.3 STRUCTURE OF THE THESIS

Following this introductory chapter, chapter 2 focuses on institutional theory and, in particular, on Old Institutional Economics (OIE) and on the OIE model of Burns and Scapens (2000). This chapter briefly analyses major issues in OIE, including recent controversies about routines. It also argues for reconceptualising rules in a wider way, beyond formal rules and encompassing the notion of rules as *internal* structures orienting actors. It also notes that rules (thus defined) underlie routines and that considering rules fills a gap in routines-focused frameworks – in particular, when there are no established routines as regards particular issues. The chapter concludes by establishing links to the following chapter on the topic of power.

Chapter 3 reviews literature on power. It starts by reviewing ‘conventional’ notions of power, typically viewing power as a cause of effects over others. Then, it discusses alternative notions of power, which subsequently support the discussion of Foucauldian and Actor-Network Theory approaches to power. The chapter then presents Clegg’s (1989) framework of ‘Circuits of Power’ in more detail, hence completing the theoretical foundations for the case study.

Chapter 4 reflects on research design, providing a processual account of the conducted research design (and implementation) as a mix of deliberate and emergent strategies. The chapter starts by analysing the most fundamental aspects of research design, such as the researcher’s main assumptions and initial choices regarding the

research topic, theories, methodologies and method – as well as subsequent changes in topic and theories, as already outlined in the current chapter. Then, the chapter analyses more detailed aspects, such as the (dynamic) definition of the organisational and temporal scope and of the techniques to generate and analyse information.

The case study analysis stretches through three chapters (5, 6 and 7), each addressing one research question and one element of the case study narrative. Chapter 5 provides a general overview of the case study organisation and a broad historical perspective. Then, it characterises the organisation in more detail between the early 1990's and the late 1990's (when the first analysed innovations – SAP FI and the CC - started emerging; see section 4.2.1 for details). Importantly, it depicts a scenario in which, by the end of the 1990's, formally powerful central actors were confronted with several limitations and, on the contrary, local actors were perceived to have substantial power. Therefore, this chapter sets the empirical paradox, highlighting that answering 'Who *are* the powerful?' requires answering 'What *causes* (or limits) power?' (Clegg, 1989; Seal, 2003).

Chapter 6 analyses 'why' and 'how' the three innovations (SAP FI, the CC and the SSC) were introduced by central actors between 1998 and 2001. It analyses each innovation separately, as related components of a single case study - although it becomes clear that the motivations (and expectations) and the processes involving the various innovations were indeed highly interrelated.

Chapter 7 analyses the multiple repercussions which unfolded after the introduction of the innovations and until the time of the fieldwork. The analysis is mostly structured around the repercussions on the circuit of system integration and on

the circuit of social integration, but it becomes clear that the repercussions span across the various circuits in multiple and interrelated ways. Based on this analysis, this chapter proposes a number of contributions about how the innovations promoted repercussions across the organisation and its circuits of power, ultimately promoting favourable episodic outcomes for the central actors who had been involved in introducing those innovations.

Chapter 8 proposes theoretical contributions to the literature on power and OIE. The first contribution concerns several refinements to Clegg's framework, comprising changes in its graphical layout, linkages and even concepts; these developments add to the various contributions proposed in chapter 7. The second contribution is an ANT-inspired, OIE model of rule-based action. This model is loosely inspired in Burns and Scapens' (2000) macro structure and concepts, but it proposes additional structures and substantially different perspectives, mechanisms and even concepts. The proposed model acknowledges intra-organisational diversity and focuses on the processes of introduction, interpretation, acceptance and enactment of *rules*. It also relates rules with material conditions, in particular since rules may be technologically and organisationally embedded. Finally, the model highlights that rules may be enacted by both human actors (individual and collective) and non-human actors.

Chapter 9 concludes the thesis, reviewing the answers provided to the various research questions, acknowledging some limitations and suggesting avenues for future research.

CHAPTER 2 - INSTITUTIONAL THEORY

2.0 INTRODUCTION AND OVERVIEW

This chapter provides one of the theoretical foundations and interpretive lenses of this thesis, institutional theory, and in particular of its Old Institutional Economics (OIE) field. It also highlights key topical discussions within OIE, in particular as regards routines, it suggests that a reconceptualisation of rules may expand the explanatory potential of institutional theory and identifies linkages with other theoretical issues developed in the remainder of the thesis (in particular, power). Therefore, this chapter sets the institutional theory perspective which is the starting point for an additional theoretical review (chapter 3) and empirical work (chapters 5, 6 and 7), and to which this thesis contributes (section 8.2).

The first section briefly introduces institutional theory, starting by highlighting the difficulties in defining its fundamental nature and key concepts and its heterogeneity. It then briefly defines some fields of institutional theory. After a brief discussion of New Institutional Sociology (NIS), it explores OIE, the field most aligned with the researcher's ontological and epistemological assumptions, with the research objectives and topics and with the adopted (micro) level of analysis (see chapter 4). The characterisation of OIE is completed with an analysis of its theoretical roots, with a particular attention to Anthony Giddens' work.

The second section sketches some contemporary developments within OIE. It starts by depicting the main features of the seminal framework of Burns and Scapens (2000) and ensuing research stream. Routines are the focus of the remainder of the

section, given their prominent place within OIE literature and the recent debates around their ontological nature (e.g., Becker, 2008b). In particular, the section reviews the various conceptions of routines typically identified in the literature (routines as behaviour, as rules or as dispositions) (e.g., Becker, 2004), identifies some proposals to reconcile the various alternatives (e.g., Feldman and Pentland, 2003) and adds a more recently identified dimension: the material dimension of routines (Volkoff *et al.*, 2007).

The third section argues for the need to dedicate greater attention to rules, a core (but somewhat neglected) component of OIE models. In particular, it suggests going beyond the usually adopted sense of formal rules (e.g., Burns and Scapens, 2000; Lukka, 2007). Instead, it is argued that informal rules should also be considered, and rules can also be conceptualised as internal structures orienting actors' behaviours, through processes of rules introduction, interpretation, acceptance and enactment (Becker, 1998; Busco, 2009; Clegg, 1975; Coad and Herbert, 2009; Ribeiro, 2003). This broader conceptualisation of rules is argued to underlie routines and to increase the explanatory power of institutional theory, in particular when there are no routines regarding particular empirical situations. The section concludes by noting that the proposed renewed emphasis on rules should not be considered as an alternative to routines; instead, future research should analyse how routines and rules (in particular, as actors' internal structures) may evolve in a *cumulative interaction*.

Finally, the fourth section identifies pertinent theoretical linkages to institutional theory which were elicited by the interpretation of the case study insights. In particular, this section discusses how institutional theory has investigated the topic of *power*, and therefore establishes a link to the next chapter. It notes that power has traditionally been absent from NIS. As regards OIE, an apparent paradox is noted: the prevalent claim that

power is at the heart of OIE is not immediately reconcilable with the overall OIE suggestion that institutions bring peace and truce to organisations. A final section concludes the chapter.

2.1 AN INTRODUCTION TO INSTITUTIONAL THEORY AND SOME OF ITS FIELDS

2.1.1 THE HETEROGENEOUS NATURE OF INSTITUTIONAL THEORY

Within economics and organisational analysis, institutional theory has emerged mainly as a reaction to a traditional, mainstream view of the economy and organisations, rooted in a behaviouralist approach (Moll *et al.*, 2006a). The need to affirm itself as an alternative to an existing approach had the consequence that institutional theory was largely defined by what it was *not*, rather than what it was (DiMaggio and Powell, 1991a; Seal and Mattimoe, 2007)¹. This characteristic of being defined by the negative also promoted the development of distinct alternative proposals, sharing some – though often limited – areas of commonality.

In very broad terms, institutional theory claims that ‘institutions’ and the ‘institutional context’ are important influences, limiting individual and organisational rationality as perceived by mainstream approaches. The very general consideration that “institutions matter” is a common assumption of the various institutional approaches (e.g., Moll *et al.*, 2006a, p. 184). However, the definition of, e.g., institutions,

¹ This definition of a new, emergent research approach by the negative, by stating what it is not, is not unique to institutional theory. The “polyphonic debate” in Ahrens *et al.* (2008, p. 840) discussed a similar situation in the broader field of interpretative research (where institutional theory may be loosely included). The fifteen contributors to this paper colourfully illustrated the efforts - and difficulties (see also Dillard, 2008)- in transcending such definition by the negative, which limits the clarification of an “independent intellectual identity” (Ahrens *et al.*, 2008, p. 841).

institutional contexts and influenced entities differs across different institutional approaches (DiMaggio and Powell, 1991a; Hodgson, 2000; Moll *et al.*, 2006a; Nelson, 2007). Such diversity derived from the level of analysis focused by each research stream, as well as from the disciplinary background of each stream (e.g., economics, political science, psychology, sociology, social history and organisational theory – disciplines with different levels of analysis themselves). Nelson (2007) argued that “the conglomerate of things” that have been identified with ‘institutions’ “largely reflects the fact that many different kinds of structures and forces mould the way individuals and organizations interact to get things done. Many different institutions are needed, and the institutions that are effective are very context dependent” (p. 313). However, he noted that “[t]his diversity of meanings, and analytic foci, makes coherent discussion about the nature and role of institutions difficult” (p. 314).

Some authors (e.g., Dugger, 1990; Hodgson, 2000 and 2006; Nelson, 2007) aimed at defining concepts (an ‘institution’ or ‘institutional economics’) in a ‘positive’ way, what those concepts *are* (rather than what they are *not*), by enumerating a number of defining properties. However, they were all invariably led into comparing and confronting alternative perspectives or schools of thought.

An example is Hodgson (2000), who set out to define the “essence”, the “‘hard core’ of the institutionalist tradition” (p. 317, 318), but actually confronted a particular branch of institutional theory (Old Institutional Economics – OIE, see below) against others. Hodgson rephrased Hamilton’s (1919) long-standing description of institutionalism into propositions. Among others, he proposed: institutionalism’s interdisciplinary character; an emphasis on ‘institutions’ as key elements of economy (Hodgson, 2006 later explored how differently theorists may use the word ‘institution’;

see also Nelson, 2007); the view of an open and evolving system, situated in a natural and social context, affected by technological and other changes. All these characteristics, Hodgson (2000) concluded, are not sufficient to define old institutionalism. Hodgson added another proposition, that “[i]nstitutionalism does not take the individual as a given. Individuals are affected by their institutional and cultural situations” (p. 318). And he claimed that this proposition was the one which could clearly distinguish old institutionalism from other schools and from other institutionalist fields.

Reviewing Hodgson’s (2006) analysis, it is clear that in spite of the initially stated aims of defining ‘institutionalism’ (it could be thought, ‘institutionalism’ as a whole), Hodgson could not avoid placing himself in a certain ‘field’ of institutional theory (OIE). He could not avoid establishing comparisons against other schools of thought and other ‘fields’ of institutional theory. Finally, Hodgson was focused in the domain of economics, and did not try to encompass the insights from the sociological field of institutional theory (New Institutional Sociology – NIS, see below).

As a reflection of these difficulties to sketch what institutional theory is, *as a whole*, most reviews of institutional theory opt to identify, describe and compare three main approaches of institutional theory: New Institutional Sociology (NIS), Old Institutional Economics (OIE) and New Institutional Economics (NIE) (e.g., Major and Ribeiro, 2009; Moll *et al.*, 2006a; Robalo, 2007; see DiMaggio and Powell, 1991a for some *nuances* within this classification). Notwithstanding, as noted below, various researchers have been addressing long standing calls to build bridges between branches of institutional theory (as proposed, e.g., by DiMaggio and Powell, 1991a; Hirsch and Lounsbury, 1997).

A detailed analysis of each institutional approach can be found in the above referenced reviews, and is not repeated here. As discussed in chapter 4, in this thesis, OIE was adopted as the main interpretative lens within institutional theory, and only occasional references to NIS are made. Therefore, New Institutional Economics (NIE) is not further discussed (see the reviews above, Dugger, 1990 and Hodgson, 1993). NIS is only briefly introduced next. Then, more attention is devoted to OIE. In particular, it is important to clarify the levels and units of analysis of NIS and OIE, and the corresponding (tentative) definitions of what an ‘institution’ may be considered to be.

2.1.2 NEW INSTITUTIONAL SOCIOLOGY (NIS)

New Institutional Sociology (henceforth, NIS) tends to focus a high, macro level of analysis – typically, at the level of society or societal sectors such as organisational fields (many chapters in Powell and DiMaggio, 1991 are key references; also, Scott, 1995 and 2001). It emphasises how organisations are influenced by their external environment, in the line of the Open Systems theory approach. Indeed, a key issue for the seminal work of DiMaggio and Powell (1983, 1991b) was understanding why organisations exhibited relatively little variation among themselves, and in particular within their organisational fields – i.e. understanding *isomorphism*. Interestingly, Hambrick *et al.* (2004) adopted the same open systems rationale and even DiMaggio and Powell’s (1983) rationale underlying isomorphism to conclude, on the contrary, that subsequent macro-social trends actually promoted intra-industry diversity. Regardless of the diagnosis about the actual directions of macro-social trends, the important insight for this discussion about NIS is highlighting its focus on macro environmental pressures on organisations, and how organisations adapt to those external pressures.

DiMaggio and Powell described an *organisational field* as the “organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products”, hence including “the totality of relevant actors” (1991b, p. 64-5). Correspondingly, NIS defines *institution* at the *macro* levels defined above. Institutions are identified with macro level “external rules, procedures, myths and/or norms” (Moll *et al.*, 2006a, p. 187), “organized, established procedure[s]”, “the ‘rules of the game’”, constituting “a social order or pattern that has attained a certain state or property” (Jepperson, 1991, pp. 143, 145). Consequently, “*institutionalization* denotes the process of such attainment” (Jepperson, 1991, p. 145) and is “interorganizational in locus” (DiMaggio and Powell, 1991a, p. 14).

NIS theorists argued that, within a given organisational field, particular ways of organising may become perceived as adequate and legitimate by participant organisations, which therefore tend to adopt them. This preference for, and adoption of, configurations prevalent in the institutional field is a result, Meyer and Rowan (1977) argued, of organisations’ search for legitimacy, in order to secure scarce resources and hence increase their survival prospects. Since the criterion for adoption is the search for legitimacy associated with each (socially legitimated) configuration, configurations which are not technically adequate may be actually selected, provided they are seen as rational within the institutional field and, in particular, by the actors upon which the attribution of resources depend on.

NIS traditionally depicted individual organisations as “loosely coupled arrays of standardised elements” within the institutional field (DiMaggio and Powell, 1991a, p. 14). Given NIS’s macro level focus, organisations tended to be treated as if they were

unitary entities and players (see, e.g., North's position in his correspondence with Hodgson, in Hodgson, 2006). Organisations are considered social actors – *collective* social actors, alongside individual social actors (Scott, 2002). However, little attention was given to what exists and happens inside organisations, including institutionalisation processes *within* organisations. Organisations and institutionalisation processes at the organisational level tended to be treated as black-boxes, neglecting potential organisational and institutional diversity (e.g., Dillard *et al.*, 2004; Ribeiro, 2003; Zucker, 1991)².

The NIS claim that *institutions*, as configurations already established and perceived as rational within an institutional field, tend to be emulated by organisations from that field, has prompted generalised criticism. NIS theorists typically complement the emphasis that “[i]nstitutions by definition connote stability” by adding that institutions are also “subject to change processes, both incremental and discontinuous” (Scott, 2001, p. 48). Nevertheless, there is a repeated accusation that NIS great emphasis on the macro influence of institutions has promoted an excessive emphasis on structural constraint and neglected the possibility of institutional change. Gorges (2001) was particularly critical: “The new institutionalism fails to provide an adequate explanation of institutional change because, by relying on variables such as critical junctures, path dependency, leadership or the role of ideas, it leaves institutions behind and employs a grab-bag of explanations that proponents of almost any theoretical perspective could use. The conditions under which these variables matter are unspecified and the causal

² This NIS conception of organizations as collective social actors is markedly different from the collective agency proposed by Actor-Network Theory (ANT) and postmodern theorists, discussed in the next chapter. Without anticipating the discussion, it suffices to say that ANT, while emphasising the effects of *collective* agency, is *particularly* focused on the *micro* level and on the *diversity*, relations and events *within* organizations – i.e., in a strike contrast with NIS macro level perspective and with the unitary way in which NIS tends to take organizations.

relevance of institutions themselves is unclear” (p. 137). In addition, the macro level focus of NIS also prompted criticisms of neglecting important micro-level dynamics and, in particular, the role of individual agency (Hirsch and Lounsbury, 1997; Lounsbury, 2008; Moll *et al.*, 2006a; Ribeiro, 2003).

These two major criticisms about the NIS emphasis on the macro level (neglecting the micro level) and on stability (neglecting change) have given rise to substantial research focused on change and encompassing intra-organisational issues, typically adopting a multi-level perspective (see Dillard *et al.*, 2004; Major and Hopper, 2005; Modell *et al.*, 2007; Nor-Aziah and Scapens, 2007; Tsamenyi *et al.*, 2006) as examples from the accounting literature; see also Greenwood and Hinings, 1996 and Seo and Creed, 2002). Indeed, it can be observed that NIS researchers, to develop a more encompassing level of analysis and even to identify potential mechanisms of change, gradually incorporated concerns and concepts of the field of institutional theory which privileges micro-level issues - Old Institutional Economics (OIE). OIE is now discussed.

2.1.3 OLD INSTITUTIONAL ECONOMICS (OIE)

2.1.3.1 An introduction to OIE

Contemporary Old Institutional Economics (OIE) is a stream of institutional theory which privileges a lower level of analysis, when compared to NIS. The *locus of institutionalisation* tends to be individual, particular, concrete organisations, seen as “organic wholes” (DiMaggio and Powell, 1991a, p. 14). Therefore, the *units of analysis*

of OIE (Hodgson, 2002) are the prevalent institutions in a given setting (typically, an organisation), alongside the individuals³ populating that organisation.

The prevalent OIE conception, drawing from the overall institutional theory assumption that ‘institutions matter’ (see above) and in line with Macintosh and Scapens’ (1990) interpretation of Giddens’ structuration theory (see below), is that organisational actors are “social and encultured individuals”, influenced by circumstances and, in particular, by prevalent organisational institutions (Hodgson, 2002, p. xxii). OIE places a particular (but far from exclusive, as analysed below) emphasis on the notion of ‘downward causation’. Hodgson proposed (2000) the notion of ‘reconstitutive downward causation’, through which individuals’ learning “takes place through and within social structures” (p. 327), in developmental processes leading to the individuals’ reconstitution. In a nutshell, OIE endorses the view of “[t]he Institutionalised Individual” (Hodgson, 2000, p. 323), as a distinctive trait of OIE⁴.

Therefore, OIE is particularly appropriate to research *intra*-organisational phenomena, at the *micro level* of local communities – clearly at a lower level than the inter-organisational and macro level approach of NIS. Indeed, these different levels of analyses can be seen as a useful complementarity. E.g., Johansson and Siverbo (2009)

³ A brief comparison between OIE and ANT is needed, similarly to the comparison with NIS in the previous footnote. OIE attributes agency (although a typically limited agency) solely to individuals, as the sole actors (or agents). However, ANT grants potential agency to both individual and *collective human* entities (e.g., organizations) and even non-human actors (see section 3.4, and Volkoff *et al.*, 2007 for a brief comparison). Therefore, OIE has a narrower conception of agency than ANT. Since this chapter is about OIE, and to avoid confusions when quoting OIE-related literature, the ensuing text often mentions the term ‘individual’. However, when appropriate and when it does not cause confusion, the text also adopts the terms ‘agent’ or ‘actor’, which are accepted by both theoretical strands – although, in an OIE context, the term tends to have the narrower scope of ‘individual’. Adopting terms (‘agent’ or ‘actor’) shared by both theories facilitates future links between them.

⁴ However, this ‘downward causation’ neither entails a deterministic relationship (in which individuals are ‘dopes’) nor invalidates opposite ‘upward causation’ mechanisms, as discussed below.

recently commented that “NIS explains how management accounting innovations come to organisations and OIE explains what happens to the innovations thereafter” (p. 148).

OIE is also *evolutionary*, given its concern on processes – on processes of change and, often, on processes of stability. Although Hodgson (2000) was critic about the vagueness of the term ‘evolutionary’, Johansson and Siverbo (2009) have recently called that OIE adopts a more explicit emphasis on evolutionary theory (see also Pelikan, 2010 for a related approach). These authors argued that an evolutionary perspective has the potential to research not only slow and gradual changes (the most frequent field of application of this perspective), but also rapid and radical changes.

Indeed, like NIS, OIE has tended to dedicate particular attention to *stability*, rather than change. As discussed next, OIE concepts (e.g., its main concept of ‘institution’) tend to be particularly better adequate to explain stability. Taking for now a very simple approach, an overarching message of OIE is that, typically at an organisation level, existing institutions influence actors’ behaviours, beliefs and interests and, in time, this may ultimately lead to the reinforcement of the original institutions. In this regard, OIE actually shares common traits with NIS, since the central mechanisms of both fields of institutional theory are essentially about reproduction and therefore promote stability. As Droege and Johnson (2007, p. 83) simply, but expressively, put it: “Institutional theory has had a tough time dealing with institutional change”.

OIE experienced a clear renaissance during the first decade of the millennium. In the specific area of accounting, a large number of studies emerged since the start of the new millennium, such as Abrahamsson and Gerdin (2006), Burns (2000a), Burns and

Scapens (2000), Burns and Baldvinsdottir (2005), Busco *et al.* (2006), Coad and Herbert (2009), Granlund (2001), Lukka (2007), Quinn (2010), Ribeiro (2003), Ribeiro and Scapens (2006), Robalo (2007), Soin *et al.* (2002) and Van der Steen (2007). Before analysing in more detail OIE's recent developments, it is useful to briefly review some of its antecedents.

2.1.3.2 Key theoretical antecedents of OIE-inspired research

A number of researchers drew on the late nineteenth / early twentieth century insights from Thorstein Veblen, the founder of OIE, and explored and developed them to explain the influences of institutions on organisational life (see Moll *et al.*, 2006a for various Veblen's references). As Burns (2000b) and Moll *et al.* (2006a) noted, early OIE work, such as Veblen's, focused the macro level of society and economy. Only much more recently, in particular after Nelson and Winter (1982) and Hodgson (1988), OIE started being applied to the firm-level - in a revival characterised by Ribeiro (2003) and Ribeiro and Scapens (2006) as 'neo-OIE'.

A key, contemporary theorist behind this renewed stream of OIE research is Anthony Giddens (e.g., Giddens, 1979, 1984, 1987, 1990 and 1991), whose work has been addressed in a vast secondary literature⁵. Giddens laid down the basis of structuralism, addressing the controversial relationship between structures and agents, i.e., the controversy around structural determination and human agency – the wider

⁵ Examples of such secondary literature are Burns and Scapens (2000), Boland (1996), Busco (2009), Clegg (1989), Macintosh (1994), Macintosh and Scapens (1990), Moilanen (2008), Moore (2007), Quinn (2010), Ribeiro (2003), Scapens (1994), Scapens and Macintosh (1996), Seal (2003), Seal and Herbert (2009) and Whittington (1992). Given that the core theoretical approach of this thesis does not concern Giddens' original work, but rather the applications and developments within OIE based on Giddens' work, the ensuing analysis mostly draws upon this secondary literature (cf. the cautionary note of Mizruchi and Fein, 1999 about the usage of secondary literature). The resort to secondary literature also lessens the cumulative challenges of Giddens' vast and highly abstract work being expressed in a "strangle[d] prose" which makes "meaning opaque" (Clegg *et al.*, 2006, p. 200) and not being easy to summarise (Whittington, 1992).

social theory topic in which the relationship between institutions and individuals' actions can be situated. There is no attempt here to describe structuration theory in detail, and only its main traits are sketched (the mentioned secondary literature constitutes a good interpretive guide through Giddens' vast and complex work).

As depicted in table 2.1 (below), Giddens identified three *modalities of structuration*, based on three dimensions of structures: structures of signification, of legitimation and of domination. In turn, structures are conceptualised as *rules* and *resources*, which are linked with the three modalities of structuration. There are two types of rules: interpretive and normative. Interpretive rules form structures of *signification*, by creating meaning; in turn, normative rules form structures of *legitimation*, producing a morality involving values. Finally, resources – which are facilitative - can be allocative or authoritative, forming structures of *domination* which produce power. The following systematisation of Giddens' three dimensions of structures is a recurrent presence in analyses of Giddens' work (Table 2.1).

INTERACTION	Communication	Power	Sanction
(MODALITY)	Interpretive scheme	Facility	Norm
STRUCTURE	Signification	Domination	Legitimation

Table 2.1: Structures and modalities of structuration (Source: Giddens, 1979)

Giddens proposed that structures are drawn upon by individuals, as knowledgeable agents, in their social practices and interactions. As such, structures both enable and constrain human agency and hence constitute social practices. This view is the 'downward causation' alluded above which, *should it be* taken in isolation, would

correspond to the deterministic view of the overwhelming influence of structures (including institutions) on social practices.

In spite of this ‘downward causation’, Giddens still attributes a prime importance to self-conscious individuals, socially interacting in a purposeful way. Indeed, Giddens proposed the notion of ‘*duality of structure*’, considering that structures themselves depend on agents’ repeated drawing upon of those very same rules and resources. This latter influence corresponds to the voluntaristic view of knowledgeable human agencies recurrently producing social practices. This ‘production’ of social practices by human agencies is constitutive of reality. Indeed, human agencies produce systems, defined as regular practices reproduced by human action across time and space. Structures therefore become dependent of agency and its recurrent drawing upon of rules and resources. In Giddens’ view, this ‘upward causation’ should be conceived neither as independent nor as opposite to the ‘downward causation’; instead, both influences should be viewed as interpenetrating and indeed as a unity. Rather than a dualism, these two influences are the basis of the concept of ‘duality of structure’. Giddens’ proposal therefore attempts to “imbricate[] both aspects of production and reproduction” (Clegg, 1989, p. 139).

However, authors such as Clegg (1989) and Ribeiro (2003) noted that Giddens’ approach attributes an unstable ontological status to structures. The very existence of structures depends on knowledgeable agencies drawing upon those structures, orienting their conduct. As noted by Volkoff *et al.* (2007, p. 834) in Giddens’ view “structure only exists in the moment of instantiation [of agencies’ practices] as traces in the mind. Without an actor, there is no structure”.

Giddens' work has fuelled highly varied criticisms – indeed, even opposed criticisms. Archer (1995), Ribeiro (2003) and Volkoff *et al.* (2007) considered that Giddens conflated structure and agency. Clegg (1989) argued that Giddens was excessively subjectivist, privileging the voluntaristic or agentic perspective that agents are capable to define the actions to be carried out, in detriment to the constraining influence of structures (Volkoff *et al.*, 2007 also made this criticism, while also accusing Giddens of conflating structure and agency, as mentioned above). However, such accusations are not universal. Other authors consider that indeed “*both* agency and structure are essential elements” (Scapens and Macintosh, 1996, p. 689, emphasis in the original) and that therefore “the duality of structure enables researchers to avoid excessive determinism and voluntarism” (Seal and Herbert, 2009, p. 17). Interestingly, Whittington (1992, p. 702) noted even the *opposite* accusation of a neglect of agency, through a “too easy surrender of human actors to the ontological security of routine”, has been formulated by Willmott (1986a) – an author who tended to structuralism but otherwise kept “loyal to the Giddensian ambition of accommodating both the subjective and the structural”.

Giddens' theory of structuration was a meta-theory and some authors (Coad and Herbert, 2009; see several authors referenced in their paper) argued that its high levels of abstraction made its deployment in empirical research difficult, even doubtful. However, Giddens' theory influenced an important stream of OIE-inspired accounting research, largely via the seminal work of Macintosh and Scapens (1990) (see an acknowledgement in Busco, 2009) and subsequent works of both authors (e.g., Macintosh, 1994 and Scapens and Macintosh, 1996). In this interpretation of Giddens (cf. Boland, 1996), structures are abstract templates guiding agents' behaviour. A strong

emphasis has been attributed, in particular within the subsequent research stream, to the role of structures in developing shared meanings and understandings (within the structure of signification) and shared beliefs and moral codes (within the structure of legitimation). Additionally, and in broader terms, this research stream also tended to emphasise the constraining effects of structures over agents, as discussed below – although, as noted above, Scapens and Macintosh (1996) argued for the importance of both elements.

Structures, within the OIE approach, are above all represented in the concept of ‘institutions’. Within accounting research, Burns and Scapens’ (2000) model became a landmark reference for this approach. This work was retrieved in its main features in Burns and Scapens (2008), but the ensuing discussion references the original publication year, 2000, to preserve its historical contextualisation. Burns and Scapens (2000) is the starting point of the next section, which reviews some key OIE contemporary developments in accounting.

2.2 SOME CONTEMPORARY DEVELOPMENTS IN OIE RESEARCH

2.2.1 BURNS AND SCAPENS’ (2000) SEMINAL MODEL AND ENSUING RESEARCH STREAM

Burns and Scapens (2000) became widely cited as a seminal and typical OIE model, within the accounting literature, as recognised by Coad and Herbert (2009), Johansson and Siverbo (2009) and Quinn (2010). This model, in figure 2.1 below, comprised four main components: institutions, located within the ‘institutional realm’; actions, located within the ‘realm of action’; and rules and routines, which interact

between the institutional realm and the realm of action. Each component of the model is analysed next.

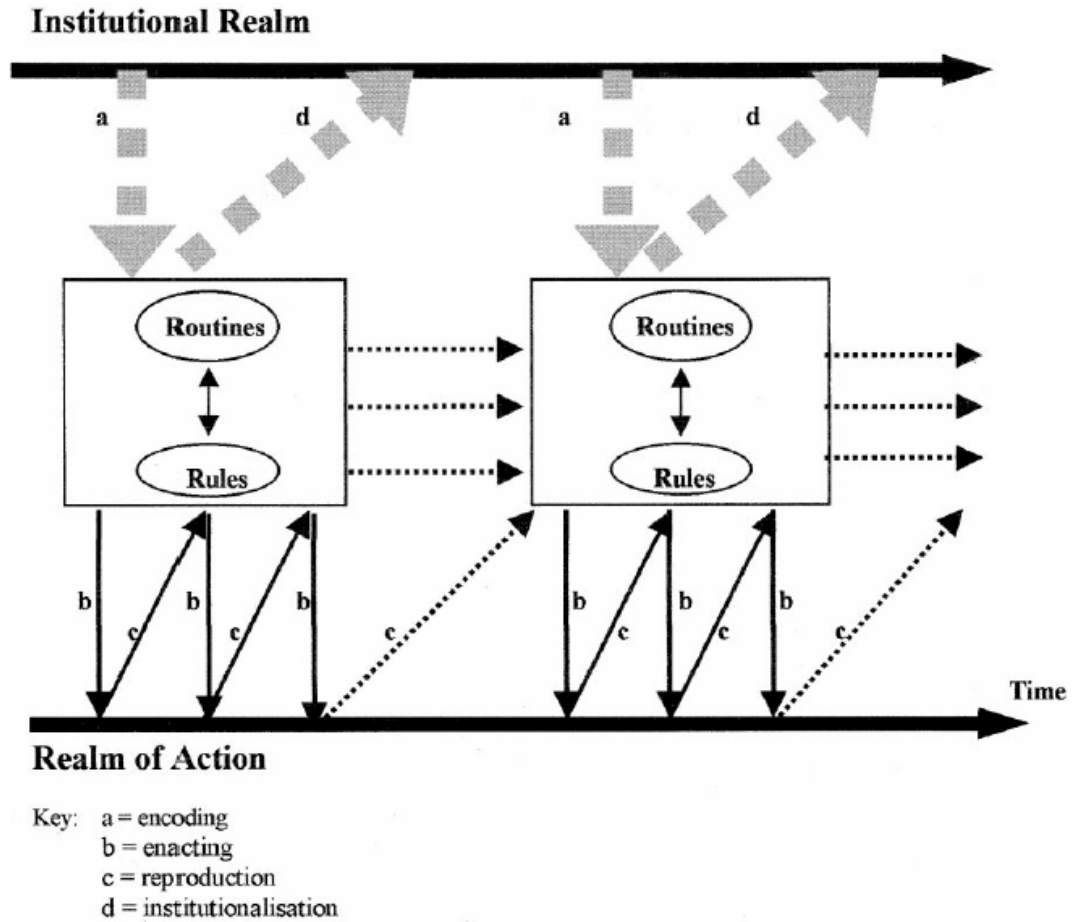


Figure 2.1: The process of institutionalisation (Source: Burns and Scapens, 2000, p. 9)

In Burns and Scapens' approach, *institutions* are “‘taken-for-granted’ ways of thinking and doing in a particular organization. (...) Members of the group simply take-for-granted that ‘this is the way things are’” (Burns and Scapens, 2000, pp 5, 8). Burns (2000a, p. 583) cited Hardy (1996, p. S8) to relate an institution with the “unconscious acceptance of the values, traditions, cultures and structures”, which “captures all organizational members in its web”⁶. Institutions are the mental background which

⁶ As already noted, OIE research has tended to locate the concept of institution at an organizational level. This is questioned and discussed below in section 2.4.

permeates the various activities of organisational members. In line with the above characterisation of this research stream, this model placed an overall emphasis on the influence of institutions over agencies ('downward causation'). The first area of influence concerns structures of signification and legitimation, associated with shared meanings and beliefs, respectively. In the model, this influence is represented in the framework by arrow 'a', through which broader institutions are encoded into (formal) rules, the model second component analysed next. Nevertheless, it should be emphasised that the authors systematically recalled the non-deterministic nature of such influence and the interrelated 'upward causation' (see below).

Rules, the second core component of the framework, were conceptualised by Burns and Scapens as the "formalized statement of procedures", "the formally recognised way in which '*things should be done*'" (p. 7 and 6, emphasis added). Beyond this particular model, the literature agrees that rules are a key feature of institutional theory. Institutional theory (not only OIE) has "stressed the ubiquity of rules that guide behavior" (DiMaggio and Powell, 1991a, p. 28). Indeed, it can be argued that rules are an underlying core component of institutions (although, as discussed below, this requires conceptualising rules in a wider way, *beyond formal* rules). The various institutional branches converge in considering that institutions have a rule-like character and are the rules of the game (Covaleski *et al.*, 2003; DiMaggio and Powell, 1991a; Hodgson, 2006; North, 1990). E.g., when Hodgson (2006) argued that demographic structures were not institutions, his argument was that their influence was not necessarily done "through the operation of rules"; demographic structures were not "institutional, *rule-based* structures" (p. 3, 21, emphasis added). At a micro level, OIE also conceives of institutions as the "rules of the game" at lower levels - such as, e.g.,

the organisational level-, prescribing appropriate conducts for individuals. At stake here is the legitimisation structure, in Giddens' terms.

However, in OIE literature, the concept of 'rules' has not been a main concern among the various components of institutional models, for several reasons. First, the macro, pervading influence of institutions required – and still requires – researchers' attention. Second, and more particularly, the cognitive revolution half a century ago (e.g., Cyert and March, 1963; see the next subsection) stressed that behaviours do not rely exclusively on deliberative, conscious and intentional enactment of rules. In turn, this cognitive revolution highlighted the importance of more taken-for-granted mechanisms such as routines (the third component of institutional models, analysed next). While the importance of such findings should not be underestimated, the lower importance attributed to rules may have also derived from a tendency to associate 'rules' with the restricted sense of *formal* rules (e.g., Burns and Scapens, 2000; Johansson and Siverbo, 2009; Lukka, 2007; Quinn, 2010; Van der Steen, 2007). As discussed in the next section, researchers *tended* to exclude *informal* rules from the concept of 'rules'. In addition, *should* rules be considered *only* as formal rules, as mere artefacts, external to the individuals, then (formal) rules are placed in the background when explaining individuals' actions. However, as argued in the next section, this restrictive conceptualisation of rules as *formal* rules can be questioned and the attention devoted to routines should not obscure the influence of rules – among other reasons, because rules remain a key component underlying those same routines.

Routines are the next core component of Burns and Scapens' model – a model which is completed with the final level of *practices*, in the realm of action. Burns and Scapens conceived that routines, like rules, also encode (or, more appropriately, embed)

institutional principles (in figure 2.1, arrow ‘a’, again). As rules are repeatedly enacted, the prescribed actions may become routinised. These rules are enacted by organisational actors, as they make decisions in everyday life, initially due to the existence of the rules themselves, but later “only because the rules involved are embedded in shared habits of thought and behavior” (Hodgson, 2006, p. 6) – i.e., routines⁷ (arrow ‘b’). In other words, the repeated enactment (of rules and/or routines) creates and reproduces those routines (arrows ‘c’), which then, by themselves, sustain the reproduction of the same practices (leading to a new enactment, depicted in another arrow ‘b’). It should be noted that routines may be “‘reproduced’ either in the same or *in a changed form*” (Burns and Scapens, 2000, p. 10). These two alternatives correspond either to the ‘more vertical’ ‘c’ arrows which feed back on the same original routine or to the *other* (oblique) ‘c’ arrow heading towards a new rule/routine set, conveying a shift in the routine (and eventually in the underlying rule).

This cascading influence: 1) of institutions over rules (arrow ‘a’); and 2) of rules over actions (which, when repeated, create routines) and of the emerging routines over actions (arrows ‘b’), is what Hodgson (2000, pp. 326, 323) called “downward causation”. This overall process creates, as mentioned above, “[t]he Institutionalised Individual”.

In time, rules and routines, continuously enacted and reproduced by the actors of that particular organisation, end up by becoming (further) institutionalised (arrow ‘d’). As the institutionalisation process continues, actors of that organisation further regard

⁷ Along the clarification made by Burns and Scapens, there is large consensus in institutional theory that habits exist at an individual, personal level, while routines refer to groups of individuals. See Becker (2004) for a similar position and more supporting literature. Hodgson (2008) added a particular insight: “routines do not simply refer to habits that are shared by many individuals in an organization or group. (...) Routines (...) are organizational meta-habits” and “are one ontological layer above habits themselves” (p.18).

those patterns of behaviour as ‘the way things are’ in that field, in a relatively unquestioned, taken for granted way and increasingly disassociated from their particular historical context.

This perspective is strongly influenced by a *Parsonian* view (Parsons, 1937), which stresses the importance of the *internalisation* of shared values among agents to generate commitment and ‘appropriate’ dispositions, in a stable and sustainable way. Parsons emphasises individuals’ evaluative judgment based on wider values, norms and attitudes, largely a result from the commitment derived from socialisation (DiMaggio and Powell, 1991a, characterising OIE; Ribeiro, 2003). Internalised values are therefore at the core of this evaluative dimension of orientations towards action⁸, with a particular emphasis on the role of wider social norms and expectations creating a normative order (this Parsonian view is further discussed in page 57). “Insofar as institutions lead to regularities of behavior, concordant habits are laid down among the population, leading to congruent purposes and beliefs. In this way the institutional structure is further sustained. (...) [T]hrough this positive feedback [institutions] have strong self-reinforcing and self-perpetuating characteristics. Institutions are perpetuated not simply through the convenient coordination rules that they offer. They are perpetuated because they confine and mold individual aspirations and create a foundation for their existence upon the many individual minds that they taint with their conventions” (Hodgson 2006, p. 7).

Self-reinforcement and self-perpetuation mechanisms of institutions promote stability of the *status quo*, and little or no change. Therefore, there were accusations of

⁸ See DiMaggio and Powell (1991a) for a discussion of the prevalence of the evaluative dimension in Parsons’ theoretical development, when compared to the other two dimensions he also initially proposed: the cognitive dimension (related with ideas and beliefs) and the cathetic (affective) dimension.

an institutional determinism eliminating any substantive agency, independent and free from institutions - as argued by Boland (1996) and as acknowledged, at least partially, by many contemporary OIE researchers (e.g., Burns and Baldvinsdottir, 2005; Hodgson, 2000) as regards some theorists of past decades.

It should be acknowledged that Burns and Scapens' grounding in Giddens' structuration theory and its notion of duality of structure led to a *systematic* recall of the non-deterministic nature of 'downward causation' and the interrelated '*upward causation*'. So, they argued that while institutions produce and reproduce "settled habits of thought and action, (...) [i]nstitutions themselves evolve through a process of routinization of human activity". Therefore, institutions are the outcome of individual behaviour and habituation within social interactions – i.e., institutions are socially constructed. Hodgson (2006) quoted Commons (1965-1899, p. 6-8) to argue that "common beliefs and desires are the vitalising active force within the institution". So, "actor and institutional structure (...) are connected in a circle of mutual interaction and interdependence" (Hodgson 2006, p. 8), in line with Giddens' notion of duality of structure.

As noted above, Burns and Scapens (2000) became a key reference within OIE-inspired accounting research. Abrahamsson and Gerdin (2006), Burns (2000a and 2008), Burns and Baldvinsdottir (2005), Busco *et al.* (2006), Coad and Herbert (2009), Dillard *et al.* (2004), Englund and Gerdin (2008), Granlund (2001 and 2003), Hyvönen and Järvinen (2006), Johansson and Siverbo (2009), Lukka (2007), Modell *et al.* (2007), Nor-Aziah and Scapens (2007), Ribeiro (2003), Ribeiro and Scapens (2006), Robalo (2007), Siti-Nabiha and Scapens (2005), Soin *et al.* (2002), Van der Steen (2007) and Yazdifar *et al.* (2008) are mere examples of an impressive list of research (by and large

within OIE, but occasionally also within NIS) which draw heavily on Burns and Scapens (2000) (more than making a mere passing mention). Indeed, this list could easily be even further extended.

2.2.2 AN EMPHASIS ON ROUTINES

About half a century ago, cognitive theory (in particular from key organisational theorists as Cyert and March, 1963, March and Simon, 1958 and other researchers from the Carnegie School; see Hodgson, 1988 for a review of seminal contributions) showed that behaviour cannot be assumed to be entirely deliberative, conscious and intentional. This finding was hugely influential among institutional theorists, and promoted a particular emphasis on behaviour of a routinised nature – rather than on behaviour resulting from choices based on the rational following of rules. Routines became, next to institutions, a main research topic (see, e.g., Becker, 2004 for a review), which has recently gained further momentum (see below). However, as argued in the next section, such findings have not eliminated the importance and presence of rules, which should therefore be retained within an institutional account of organisational behaviour.

Hodgson (1988) highlighted that “mind and consciousness” are “multiple-levelled and hierarchical” and that “[h]uman agents are both rational and sub-rational at the same time” (p. 110). Such insights replaced decision-making models of *mere* choice by models of *taken-for-granted expectations* (see, e.g., March, 1987 for a classic example in accounting), fuelling the emergent concern on *routines*, habits and scripts⁹.

⁹ Interestingly, although DiMaggio and Powell (1991a) related these developments to NIS and argued that they contrasted against OIE’s concern with values and commitment towards a particular entity, many OIE works already cited highlight that such developments have been enthusiastically incorporated into this branch of institutional theory, as well.

The findings that behaviour is not entirely deliberative, conscious and intentional, and in particular that individuals adopt satisficing (rather than maximising) strategies (March and Simon, 1958), downgraded the emphasis in the precise calculation of consequences. Alternatively, they placed *rule following* in centre stage - even if mere ‘rules of thumb’ are involved, rather than maximising ones (DiMaggio and Powell, 1991a; Hodgson, 2008; Scapens, 1994). But, as noted in the next section, this still leads to the issue of *knowing what the followed rules are* and highlights that *there are still rules* involved.

The new emphasis on rule following is typically associated with *routinised* rule following, and with how rule-following behaviour can be sustained (Hodgson, 2008; Scapens, 1994). Routinised behaviour has been discussed above, when Burns and Scapens (2000) was presented. Giddens (1984), one of Burns and Scapens’ main influences, emphasised how routines contributed to control anxiety. Therefore, routines address a major problem of the mind, as highlighted by cognitive theory (see Becker, 2004 for an extensive reference list). “Cognitive theory shows that the mind responds to the vast amount of sense data it receives by working to reduce uncertainty at the conceptual level and by giving the ‘chaotic jumble’ of stimuli some sense and meaning. In general we simultaneously face the problem of having (...) too much data for the mind to process (...) and too little information (...) too little knowledge. It would not be possible to process all the given sensory data in a rational, conscious calculation. (...) The crucially relevant step is that we form concepts, based on our past experience, to categorize the sense data and to endow it with meaning” (Hodgson, 1988, p. 108-9).

Therefore, “although individual actors (...) often try to act intelligently by calculating the expected consequences of possible actions, such a basis for action is

typically supplemented by, or subordinated to, the following of rules that encode historical lessons learned within a complex ecology of nested organizations” (March, 1987, p. 157) – even if these rules are merely satisficing ‘rules of thumb’.

In a conceptualisation closely related with the above perspective, Clegg (1989) discussed how “contextual ‘rules of the game’ (...) both enable and constrain action (...). These rules may be taken to be the underlying rationale of those calculations which agencies routinely make in organizational contexts. Action can only ever be designated as such-and-such an action by reference to rules which identify it as such” (Clegg, 1989, p. 200). E.g., producing a report from a subsidiary to headquarters cannot be made sense of without a reference to a large number of rules, both explicit and implicit, as regards the content and degree of detail, format, timing and relative priority to other actions, to name just a few. These rules constitute a ‘rationale’ underlying the behaviours.

Much contemporary, mostly OIE-inspired research elected routines as a research focus (Becker, 1998 and 2004 and the fourteen contributions in Becker, 2008b; Burns, 2000a and 2008; Coad and Cullen, 2006; Feldman and Pentland, 2003; Lukka, 2007; Pentland and Feldman, 2005; Quinn, 2010; Robalo, 2007; Volkoff *et al.*, 2007). The large number of works in this list, together with the analysis in this subsection, highlight the relevance of routines within institutional theory, and in other contemporary research. However, the concept and nature of routines have been recently under controversy. This controversy and emerging proposals are analysed next.

2.2.3 THE CONTENTIOUS NATURE OF ROUTINES

2.2.3.1 Identifying the definitional ambiguity of routines

What are routines? The definition of routines has recently been through an important debate around a definitional ambiguity of the term ‘routine’ in previous work (e.g., Burns and Scapens, 2000; Scapens and Macintosh, 1996), as noted by Becker (2004, 2008a), Englund and Gerdin (2008), Johansson and Siverbo (2009) and Quinn (2010) and acknowledged by Burns (2008).¹⁰ Hodgson (2003 and 2008) and Lawson (2003) also spotted a similar confusion in the earlier and seminal works of Nelson and Winter (1982) and Hamilton (1953), respectively. The recent publication dates of the above works highlight the current momentum of this discussion, although early warnings of ambiguity could already be found in Becker (1998).

The definitional ambiguity concerned three alternative conceptions of the term ‘routine’: 1) *recurrent action patterns, or recurrent behavioural patterns*; 2) *rules*; and 3) *dispositions or propensities* (Becker, 2008a). These alternative conceptions have been used, not only in the literature, but sometimes even within the same works (e.g., Burns and Scapens, 2000; Nelson and Winter, 1982). The simultaneous usage of the term routine as located in both the institutional realm and in the realm of action risked conflating structure and action (Englund and Gerdin, 2008; Hogson, 2008; Quinn, 2010). And, as Hodgson noted, “the one term ‘routine’ cannot usefully denote potentiality and actuality. It has to denote one or the other, but not both” (Hodgson, 2008, p. 19).

¹⁰ Ambiguity is frequent when defining related terms. The above discussion on institutions is representative; for another example, see Carter *et al.* (2008a) for a discussion on the definitional ambiguity surrounding the term ‘practice’ - whose one of the various attributed meanings is, actually, routine.

Each alternative definition is analysed next. Then, this subsection concludes by discussing various proposals to reconcile the different alternatives and by adding some notes regarding the transversal presence, across the various alternatives, of rules (the focus of the next section).

2.2.3.2 Routines as behaviour

The first alternative, defining routines as *recurrent behavioural patterns*, represented a behaviouralist notion of routines as “the way in which things are actually done”, as “programmatically rule-based behaviours” (Burns and Scapens, 2000, p. 6). Indeed, this emphasis on behaviour and practices can be traced back to earlier writings about institutions and Giddens, such as Cohen’s (1989) approach, cited in Scapens and Macintosh (1996, p. 681): “The concept of social institutions in structuration theory specifically refers to routinized practices that are carried out or recognised by the majority of members of a collectivity’ ([Cohen] 1989, p. 38-39)”. Routinised behaviours emerge from repeated rule following, mostly based on tacit knowledge. This approach placed routines closer to, or even within, the realm of action. Becker (1998) defined the concrete, specific aspects of routines, at the level of action, as “recurrent *action patterns*” (p. 4, emphasis added). As later noted by Becker (2004), this approach was understandingly prevalent among empirical (rather than conceptual) research.

2.2.3.3 Routines as rules

The second alternative, of considering routines as equivalent to *rules*, was the option taken by Becker (1998) to deal with the prevalent definitional ambiguity. Contrasting to the above conceptualisation of routines at the level of action, Becker defined the *cognitive representation* of the routine (the *routine in abstract*) as ‘rule’.

This definition of rule is developed in the next section but, as it can be anticipated, it goes *beyond* a restricted conceptualisation of rules as *formal* rules.

The parallels between routines and rules (in particular conceptions of the terms) are noticeable. For example, Becker (2004) indicated that routines have cognitive and governance dimensions – which are analogous to Giddens’ two types of rules, interpretive and normative.¹¹

It should be noted that Burns and Scapens (2000) argued *against* a hypothetical equivalence or conflation between the two central components of their model, routines and rules (central, in as much as they are placed at the ‘centre’ of the model, linking the institutional realm and the realm of action). These authors alerted that the two categories, in spite of both interacting between the institutional realm and the realm of action, should be analytically separated: “it is important not to confuse the two” (p. 7). However, this opposition derived from Burns and Scapens’ (overall) tendency (Quinn, 2010) to conceptualise rules as *formal* rules. Under such definition, it is clear that rules should not be confused with routines, as these authors exemplified: “practices in use may not actually replicate the systems set out in the procedure manuals” (p. 7) (as it is noticeable, in this instance the authors adopted a behavioural notion of routines).

2.2.3.4 Routines as dispositions

The third alternative, of routines as dispositions, located routines at a more abstract level, within the institutional realm. In this alternative, routines are characterised as *propensities* to act, as *generative dispositions* (Burns, 2008; Hodgson,

¹¹ In addition, Clegg’s (1989) framework, adopted in the next chapter, also considers rules of meaning and membership – concepts whose essence is not distant from Giddens’ interpretive and normative rules and, therefore, from Becker’s (2004) cognitive and governance routines.

2003). Routines are “*a disposition to act and behave in certain ways*” (Johansson and Siverbo, 2009, p. 151, emphasis in the original), although in a non-deterministic way - as Van der Steen (2007) put it, it only makes “some behaviours and thought more likely than others” (p. 6). Routines are essential in sustaining rule-like behaviour, but they are not behaviour. According to this view, routines are located within the institutional realm, rather than within the realm of action. Indeed, according to (Johansson and Siverbo, 2009, p. 151) “‘the way in which things are actually done’ requires no real conceptualisation, but can be termed behaviour or practice even when directed by a routine”.

2.2.3.5 Reconciling alternative conceptions of routines – and adding the material dimension of routines

Reflecting this diversity of alternative conceptions, Feldman and Pentland (2003) reconciled both levels of routines (the institutional realm and the realm of action) by defining two dimensions of routines: the *ostensive* and the *performative* dimensions. They view “routines as Dualities (...) [b]oth (...) necessary for an organisational routine to exist” (p. 101). This suggestion, developed in Pentland and Feldman (2005 and 2008), has been considered as promising and even adopted by several researchers (Becker, 2004; Quinn, 2010; Van der Steen, 2007; Volkoff *et al.*, 2007).

The *ostensive* or structural dimension of a routine is the “abstract, generalized idea of the routine, or the routine in principle” (Feldman and Pentland, 2003, p. 101). In its ostensive dimension, a routine “takes on a rule-like structural quality in that it may have guiding, referring and accounting properties” (Quinn, 2010, p. 288). Therefore, the ostensive dimension corresponds mostly to the above sense of routines as rules. In turn,

the *performative* or agentic dimension of a routine is “the routine in practice” and “consists of specific actions, by specific people, in specific places and times” (Feldman and Pentland, 2003, p. 101). It is constituted by observable and recurrent actions, performed when people act out their ostensive routine (Quinn, 2010). The performative dimension corresponds to the first, behaviouralist perspective of programmatic rule-based behaviours.

In addition, Volkoff *et al.* (2007) extended Feldman and Pentland’s (2003) work by adding a third aspect of routines: the *material* aspect, which is embedded in information technology (IT) such as ERPs¹². Volkoff *et al.* argued that IT differs from other physical artefacts associated with routines, “because it is an integral part of those routines, not just part of the context within which routines are executed” (p. 833). Based on their case study, they provided a detailed description of their concept of technological embeddedness: “Organizational routines are embedded in the ES [Enterprise System] in the form of system-executed transactions - sets of explicitly defined steps that require specific data inputs to automatically generate specific outcomes” (p. 839). They argued that the material aspect differs from the ostensive (the routine in abstract), since it is concrete, “transactions hard-coded into the system, (...) the same for everyone, and individual interpretations do not affect how transactions are performed. At the same time, the material aspect is not the same as the performative

¹² Volkoff *et al.*’s (2007) critical realist position emphasises the structural constraints created by technology. Volkoff *et al.* criticised structuration theory (and ANT, see next chapter) for conflating structure and agency criticised. In addition, they criticised institutional theory as tending to ignore agency (presumably, Volkoff *et al.* were targeting NIS, considering that the institutional literature they referenced - Avgerou 2000 and Gosain 2004 – are NIS works). As an alternative, they claimed that their critical realist theory emphasised the structural technological constraints and simultaneously incorporated the effects of agency. The different emphases of the various theoretical approaches are not unimportant. However, these different emphases do not prevent from including Volkoff *et al.*’s technological emphasis in this OIE analysis. On the contrary, the technological emphasis is a particularly useful complement, in particular since the case study focuses on the same major technological innovation that Volkoff *et al.* analysed: an ERP system.

aspect because the transaction is not performed but is executed by the technology. Whereas the performative aspect depends on the choices of the actor, the material aspect is predefined, and there are no choices to be made” (p. 840).

Two notes should be made regarding these alternative conceptualisations of routines. Although some authors rejected accepting more than one alternative definition (e.g., Hodgson, 2008, as cited above), other authors were more accommodative. Feldman and Pentland’s (2003) suggestion of the two dimensions of ostensive and performative routines accommodates two conceptualisations. Volkoff *et al.* (2007) extends this accommodation to *three* conceptualisations. Becker (2005) could be interpreted as even going further, by relating the different dimensions of routines to different levels of analysis. “For purposes of empirical research, the implication is that the appropriate level of analysis has to be chosen according to the research question at hand” (p. 22). This thesis does not further discuss whether it is possible to accept multiple conceptualisations of routines or not, since the ensuing focus is not on routines, but rather on another component of OIE models: rules. Nonetheless, the above examination of multiple conceptualisations of routines is relevant as regards their linkages with rules.

The second note is that *rules* are implicated in *all* recent conceptions of routines, as discussed in the next section. This argument that rules underlie routines – and indeed institutions, as also discussed next - raises the issue of how rules may be conceptualised. Conceptualising rules *merely* as a set of formal rules does not support such association. However, an expanded conception of rules is possible. This expanded conception of rules encompasses the notion of formal rules but places a distinctive emphasis on rules as an *internal structure of agents*. The conception emphasises the *cognitive* dimension

of rule - *rules as interpreted, accepted and enacted by agents* in their activities. Such conception makes rules regain a centre stage in institutional research. Indeed, rules are one of research avenues in OIE and are discussed in the next section.

Finally, and importantly, it should be noted that the previous paragraph avoided using the term ‘individuals’, and used ‘*agents*’ instead. The objective is to encompass both *individual* and *collective* entities capable of acting (agents). In fact, this cognitive dimension of rules is relevant as regards both individual people (related with “*individual* cognitive processes”) and collective entities (related with “*organizational* cognitive processes”) (Seal, 2003, p. 97). *Collective* cognitive, sense-making processes have been profoundly researched in the literature. And although OIE typically considers agents as individuals (people), it is argued that an expanded conception of agents may be beneficial. Several theoretical strands support such expansion. In line with the above discussion in this chapter, Seal (2003) argued that Giddens’ structuration theory allowed combining both types of cognitive processes through the concept of ‘duality of structure’ (see also a quote from Scapens and Macintosh, 1996 in page 51). Furthermore, in the next chapter, alternative conceptualisations of agency are discussed which also accommodate the notion of collective agents – one of the distinctive traits of Actor-Network Theory. This important issue is here only introduced, and its development is left for the next section, which proposes a renewed emphasis on rules as a major research avenue in OIE.

2.3 A RESEARCH AVENUE IN OIE: A RENEWED EMPHASIS ON RULES

Quinn (2010) noted that the “literature has not as yet provided any detailed discussion on the nature of rules in management accounting” (p. 292) and that, just like there was a definitional ambiguity surrounding routines, a similar situation could also be found as regards rules. The first subsection takes Quinn’s lead about the need to discuss the nature of rules. It is not intended to produce an in-depth discussion towards the ontology of rules, but merely to clarify (and justify) some *considerations and proposals* about the ontology of rules. It discusses the formal and informal nature of rules, arguing (unlike Quinn, 2010) that informal rules should also be included in the concept of rules. Then, it argues that rules have a dimension internal to actors which is crucial to explore the role of rules in behaviour. Finally, various arguments are presented to adopt the usage of the term ‘rule’. The second subsection argues that rules can be seen to underlie, in varying ways, all conceptions of routines. The third subsection discusses situations where routines do not exist and where rules, therefore, take a particular relevance. The fourth subsection discusses the individual and collective levels of rules, relating them with the notion of collective agency, typically absent from OIE. The final subsection concludes by reinforcing the call for researchers to devote greater importance to rules, as an important research avenue in OIE.

2.3.1 BEYOND FORMAL AND EXTERNAL RULES – CONSIDERATIONS ABOUT THE ONTOLOGY OF RULES

2.3.1.1 Formal vs. informal rules

OIE literature tends to associate ‘rules’ with the restricted sense of *formal* rules (e.g.: Johansson and Siverbo, 2009; Lukka, 2007; Quinn, 2010; Van der Steen, 2007; Burns and Scapens, 2000 also tended to make a similar association, as discussed below). Such narrow definition of rules as ‘formal’ rules has the benefit of avoiding the potential inclusion of (arguably) inadequate concepts and potentially increasing conceptual clarity (Quinn, 2010). However, as suggested above, this subsection will argue that a more encompassing definition of rules beyond formal rules is not only also possible, but it may indeed be more adequate and fruitful.

As an introductory line of reasoning, it may be argued that the notion that only formal statements qualify as rules sits uncomfortably with quite consensual conceptualisations in institutional theory. As a first example, the generalised acknowledgement that institutions are the “rules of the game” (cf. Nelson, 2007) is hardly compatible with a conception of rules restricted to *formal* rules. As a second example, recalling Giddens’ taxonomy of rules (interpretive or normative), *interpretive* rules (producing signification structures) are clearly unlikely to be restricted to formal rules: extant meanings about the social world would indeed be limited, and the scope of influence of structures would indeed be reduced, if only *formal* interpretive rules were at stake. As regards *normative* rules, defining legitimation structures, they can be (also) found in codified (hence formal) rules present at the level of states or organizations; however, it is clear that the definition of legitimate or illegitimate social conduct is influenced by a range of orientations beyond those set forward by formal rules. Englund

and Gerdin's (2008) definition of normative rules makes that clear: "connected sets of precepts about what is regarded virtue and what ought to happen in social settings (...) that agents, consciously or not, draw upon when they act" (p. 1129).

Frequently, structuralists' descriptions of rules not only allow, but also require, the conception of rules both in a formal and informal sense – formal rules could not be expected to have all the described effects. The following passage from Scapens and Macintosh (1996, p. 682), in turn drawing from Cohen (1989), is representative: "Cohen argues that 'Giddens' most significant contribution in the duality of structure is to treat rules regarding aspects of institutionalized conduct as structural properties of social collectivities'; where 'rules ... appear as generalizable aspects of procedures that are drawn upon in the reproduction of regularities of social praxis' (1989, p. 42). Such rules are reproduced many times over during routine activities undertaken by members of a collectivity and recognized for a considerable period in the history of their collectivity (Cohen, p. 43). Thus, rules may be conceived as trans-situational properties of a collectivity which are inextricably entailed in the reproduction of institutionalized social action and interaction. It is this conception of 'rules' which makes structuration theory particularly valuable in understanding the role of management accounting systems in the reproduction of organizational practice". This passage suggests that it is unlikely that an institutional theorist drawing from Giddens would argue that institutions could be reflected in, or be the reflection of, merely a set of *formal* rules¹³.

In addition, Hodgson (2006) highlighted the problematic definition of 'formal' ("Does the term *formal* mean legal, written, explicit, codifiable, or something else?")

¹³ The dual causality direction of the statement intends to focus exclusively on the issue of formality, rather than on the direction of causality between the two elements.

and, in particular, the illusory distinction between formal and informal rules (and institutions). Referring to institutions (but being equally applicable to rules), he stated that “the idea that there is a dividing line between institutions that are entirely ‘formal’ on one hand and entirely ‘informal’ institutions on the other is false, because ‘formal’ institutions (...) *always* depend on nonlegal rules and inexplicit norms in order to operate” (p. 18, emphases in the original).

Even though Burns and Scapens (2000) mostly endorsed the notion of rules as formal rules (e.g., in procedure manuals), they also acknowledged that “not all rules will be specified in this way” (p. 14). In this vein, Hodgson (2006, p. 3) defined rule as “a socially transmitted and customary normative injunction or immanently normative disposition, that in circumstances *X*, do *Y*”. He further explicitly added that rules “include norms of behavior and social conventions as well as legal rules” (*ibidem*), and he concluded by defining rules as “socially or culturally transmitted *dispositions*, with actual or potential normative content” (p. 5, emphasis added). In Hodgson (2008), he grouped together “rules and norms of behaviour, of both the explicit and informal kind” as part of the “structured social and physical environment for each individual” (p. 22) (as noted above, OIE tends to focus on individual people, rather than collective entities). In a nutshell, a wide range of *social* rules are at stake - a different perspective from the narrow characterisation of rules as *formal* rules in some OIE research.

Contributing to blurring the differences between formal and informal rules as regards their influence over behaviours, Hodgson (2006, p. 5) rejected the distinction between rules and norms based on “the different ways they enforce tasks”. According to such *rejected* distinction, norms would involve “a network of mutual beliefs”; in contrast, rules would be “the product of explicit agreement brought about by some

authority, and (...) imply sanctions”. Rejecting such distinction, Hodgson rightfully noted that “[t]he difference between such enforced sanctions and the perceived threat of disapproval by others is eroded when one considers that both involve some discomfort”. “[N]either external sanctions nor social disapproval is devoid of questions of value” and both will affect preferences as regards the course of actions to be followed. This supports that, as regards the influence upon behaviours, the concept of rules can be expanded beyond its formal sense.

As a conclusion, there is support in the literature to go *beyond formal* rules, and devote greater attention to *informal* rules – while bearing in mind the problematic distinction between both. Lukka (2007) concluded by stating that “we need to probe far beyond the limits of the formal rule systems (...) and pay increasing serious attention to the informal domain of organisations” (p. 98). Lukka suggested focusing on routines, associating them with the informal dimension. Without debating again the classifications of routines, now as regards their informal nature (the alternatives discussed in the previous section may point to different classifications), it is clear that routines are, at best, only one particular component of the informal dimension.. This work therefore takes a different perspective, arguably with some advantages, to address Lukka’s (2007) important call for research on more than merely formal rules, by expanding the conceptualisation of rules.

2.3.1.2 Rules as external to agents vs. rules as internal structures

The next key issue is whether rules should *only* be conceived as external to agents, or whether there is also an internal perspective to be considered. The discussion above has already hinted at the need of going beyond a conception of rules merely as

external agents, as a part of the environment. It is now suggested to also consider rules as ‘taken in’ by agents, i.e., an *internal* perspective. Considering the similarities (and even unclear separation) between formal and informal rules (see Hodgson’s, 2006 analysis just above), this need of adopting an internal perspective applies to both types of rules. Therefore, the ensuing discussion only distinguishes between formal and informal rules as regards ontological considerations and empirical examples, to facilitate discussion.

Let us consider that a rule ‘exists’ externally to a particular agent (although this independent external ‘existence’ is questioned below). That rule may be a formal rule, a physical artefact with a material existence, e.g., imprinted in a manual or saved in a virtual, electronic database; or it may be an informal rule, informally prevalent in a social setting. However, the process through which these ‘external rules’ become actually enacted by a particular agent must be addressed. This ‘external existence’ could be considered to correspond to a ‘starting point’; however, there is clearly a need to focus on the ‘internal existence’ of the rule within the agent’s realm.

A rule thus conceived is included in what Coad and Herbert (2009), drawing on Stones’ (2005) development of Giddens’ duality of structure, described as “*internal structures, within the agent*” (p. 179, emphasis added) (also, Busco, 2009). These internal structures are cognitive representations, internal to the agent, providing orientations for action and decisive in influencing the way the external structures constrain the agent and the agent’s perceptions. Indeed, Englund and Gerdin’s (2008) quote above already indicated that: rules are “connected sets of precepts” (p. 1129). Becker (1998) also adopted this concept of rule as a cognitive representation to replace the abstract (rather than action) level of routines. This corresponds to what Burns (2008)

described, as regards “habits, routines and other rule-like structures”, as “embed[ding] themselves within people’s minds and cognitive armoury” (Burns, 2008, p. 18), i.e., *becoming a rule to that particular agent*.

Such conceptualisation of rules “makes reference to the *interpretive* work that people engage in, when they make sense of the world” (Clegg, 1975, p. 59, emphasis added). A rule can thus be seen as “a perceived order, rather than an external ‘thing’ to which the actor reacts” (Clegg, 1975, p. 60). Ontologically, it is internal to the individual, it “is located in the party’s belief that they are subject to an ‘order’, a ‘structure of dominancy’ which is ‘regarded by the actor as in some way obligatory or exemplary for him’” (p. 60, citing Weber, 1968, p. 31) and “towards which one ‘orients’ one’s behaviour” (p. 62).

Both types of Giddens’ rules (normative and interpretive) can be framed as cognitive representations of agents, orienting agents’ behaviour and their interpretation of the world – and including their interpretation of other rules. Indeed, as Becker (1998, p. 5) noted, “a rule does not ‘exist’ on its own. It only and always ‘exists’ in conjunction with its interpretation (...). If a rule and its interpretation always and necessarily ‘exist’ in conjunction, then the implication is that it is impossible to attribute effects to either one of those because there is no criterion for distinguishing their ‘influence’”.

In addition, as Becker (1998, p. 5) also argued, “rules are linked with their use” (see also Clegg *et al.*, 2006). This *linkage between rules and their usage* (i.e., their *enactment*) is particularly relevant considering the intermediating role of the *interpretation* of rules and its inherent *indexicality*. Rules “can never provide for their own interpretation” (Clegg, 1989, p. 201). Indexicality occurs regarding the context of

interpreters, i.e., the agents; and indexicality occurs regarding the context of *interpretation*, i.e., *the actual situation* in which the rule is interpreted and potentially enacted.¹⁴ In a nutshell, rules are *indexical*, i.e., *rules are dependent on the context in which they are drawn upon by agents*. This conceptualisation of rules underlies Clegg's framework, explored in the next chapter.

In addition to the processes of rules interpretation and enactment (analysed above), two other stages should be mentioned: how the rules are *introduced* to the agent's internal realm; and how the rules are *accepted* by the agent. These two stages may be considered to be interpolated with interpretation and enactment, constituting a (potentially flexible) four stages sequence: introduction, interpretation, acceptance and enactment. Some brief words on these stages now follow.

'*Introduction*' of rules to the agent's internal realm should be broadly conceived as 'exposure' of the agent to rules – with varying levels of deliberativeness and coerciveness. Such introduction may result from *deliberate* processes or from more *emergent* processes (this distinction resembles the wider process of institutionalisation, as discussed, e.g., by Holm, 1995). In deliberate processes, other agencies draw on particular resources to 'present' the proposed rule to the agent for his/her examination, adoption and enactment. Such deliberate processes are typical of (but not exclusive of) the introduction of formal rules in a given setting by agents with the formal authority to legislate. In the case of formal rules, they involve codification and, as discussed in Burns and Scapens (2000), they may derive from institutionalised beliefs or may

¹⁴ Recalling that in Giddens' approach rules are structures, a link can be made with a different strand of the literature which also defends that (a different sense of) structure depends on agents' practice. By discussing organizational structure (rather than 'structures' in Giddens' sense) and drawing from the 'practice perspective' of Whittington (2002), Seal and Herbert (2009) argued that "structure is no longer seen as a static, discrete phenomenon that can be captured by organization charts. Structure has to be enacted or even performed by organizational members (...). Structure has to be practiced." (p. 16).

constitute the codification of extant routines. As it should be clear, in spite of the above expression “*proposed rule*”, the coerciveness involved in these processes may be significant. On the other hand, *emergent* processes are more likely to characterise the introduction of informal rules – in line with the notion of “‘(...) *accretion*, a passive process not under anyone’s control, just happening’ (Czarniawska, 1997, p. 192, original author’s emphasis)” (cited by Seal and Herbert, 2005, p. 30, referring to the institutionalisation process). The processes regarding the processes of introduction (or emergence) of informal rules still requires substantial additional research. Some leads can be obtained from work on agents’ exposure to alternative institutional features, such as Clemens and Cook (1999), Seo and Creed (2002) and Granovetter (1973 and 1983), but further research is needed.

As regards the *acceptance* of the rules by agents as valid orientations for their behaviour, alternative explanations can be found based on either a *Parsonian* view (Parsons, 1937) or in a more *calculative* view (Ribeiro, 2003). A *Parsonian* view emphasises the processes of *internalisation* and characterises much OIE research, as suggested by Ribeiro, 2003 and DiMaggio and Powell, 1991a (cf. Hirsch and Lounsbury’s, 1997 criticisms that DiMaggio and Powell, 1991a “overly caricatures the old institutionalism by (...) overemphasising the connections to Parsonian functionalism” (p. 49)). In a Parsonian perspective, rules are, above all, *morally accepted*. The individual’s “moral frame of reference” (DiMaggio and Powell, 1991a, p. 15) is crucial in the internalisation of rules, with the potential to make them largely institutionalised and taken-for-granted. Should a rule become valued by individuals, according to their evaluative judgments, it generates commitment and the appropriate dispositions towards its enactment; it becomes a rule within that individual’s *internal*

structure (Parsons, 1937; see reviews in Clegg, 1989; DiMaggio and Powell, 1991a; Ribeiro, 2003). This Parsonian view has been included within the interpretation that an important stream of authors has made of Giddens' work (Busco, 2009; Macintosh and Scapens, 1990; Scapens and Macintosh, 1996) (however, this association has been contested, as discussed in section 2.3.4).

An alternative view of rules acceptance could rely on a more *calculative* conception of individuals (Ribeiro, 2003): based on (whatever) calculative motivations (rather than espoused values), should a rule promote the attainment of (whatever) objectives of the individual, appropriate dispositions emerge towards the enactment of the rule. However, although these alternative views (a Parsonian and a more calculative, utilitarian view) seem very different, it has been suggested that the differences between them are not truly significant. As DiMaggio and Powell (1991a, p. 18) noted, in a Parsonian view “[a]ction remains rational in the sense that it comprises the quasi-intentional pursuit of gratification by reasoning humans who balance complex and multifaceted evaluative criteria”, under ““(…) rules governing actions in pursuit of immediate ends in terms of their conformity with the ultimate common value-system of the community’ (Parsons 1990: 324)” (DiMaggio and Powell, 1991a, p. 18).

Summarising the above argument, a holistic understanding of the role of rules should pay close attention to the perspective of rules as agents' cognitive representations, as *internal* structures. Abstract rules must be *introduced* to the *potential* agent. Then, the (potential) agent has to *interpret* those abstract rules, creating a first instance of indexicality in rules. The stages of acceptance and enactment *may* follow (involving, again, the agent's interpretative efforts, as noted above). In particular, Becker (1998, p. 8) stressed that “‘rules’ (cognitive representations, general, abstract)

are necessarily coupled with interpretation or use when put into action”. Following Hodgson (2006, p. 18), “[i]f laws or declarations are neither customary nor embodied in individual dispositions, then - ‘formal’ or not - they have insignificant effects. They are mere declarations or proclamations, rather than effective social rules”. And these processes of introduction, interpretation, acceptance and enactment of rules are a fundamental part of the ‘downward causation’ that distinctively characterises institutional theory (see pp. 26 and 36), ultimately influencing the realm of action.

2.3.1.3 Keeping the term ‘rule’

Considering it is, at least, plausible to label as ‘rules’ the cognitive representations, as orientations received, interpreted, accepted and enacted by an individual, then the issue becomes whether it could be advisable to adopt alternative terms. Sewell (1992), with Coad and Herbert’s (2009) agreement, argued that the term ‘rule’ is too rigid and misleadingly suggests a sense of homogeneity; therefore, these authors recommended the replacement of the term ‘rule’ with the term ‘schemas’ which individuals draw upon in the structuration process (Giddens, 1984). While acknowledging the problems involved in the term ‘rule’ and the plausibility of Sewell’s (1992) and Coad and Herbert’s (2009) proposal, the term ‘rule’ (regardless of the formality degree of the rule) is retained in this thesis, for three reasons.

First, the proposed term ‘schema’ is not, in itself, a fully adequate replacement for ‘rules’. While Coad and Herbert (2009) adequately deploy the term ‘schema’ meaning ‘outline’ or ‘model’ (“cultural”, “ideological” and “hermeneutic schema”, pp. 180, 184 and 189), it can be argued that ‘schema’ does not encompass the notion of a

rule in the normative sense of “in circumstances X, do Y” (drawing from Hodgson’s definition above).

Second, a focus on rules from an institutional theory perspective is particularly useful to establish linkages with another theoretical approach, in the next chapter: Clegg’s (1989) circuits of power, based on Actor-Network Theory. Clegg further develops, and builds on, this individual, internal perspective, and conceptualises rules as fixing relations of meaning and membership. In Clegg’s (1989) view, “rules will not be as static and idealized as in chess or some other game but will instead be far more fragile, ambiguous, unclear, dependent upon interpretation and subject to reproduction or transformation depending on the outcome of struggles to keep them the same or to change them this way or that” (p. 209). Ribeiro argued that “there may be different, possible conflicting sets of rules, available in a social system for individuals to establish meaning and membership” (p. 51) and, in addition, “in many social situations (for instance, in organisational life), clear-cut ‘rules of meaning and membership’ may be unavailable” (p. 73). Even when it is argued that “[r]ules can never provide for their own interpretation” (Clegg, 1989, p. 201), the possibility of encapsulating both formal and informal rules remains. The adoption of Clegg’s approach, in the next chapter, supports keeping the term ‘rule’, with a reach beyond the narrow concept of formal and ‘external’ rules.

The third and final reason for keeping the term ‘rule’ is grounded on its intuitive, common language, general dictionary-based meaning. The first entry in the Concise Oxford Dictionary for ‘rule’ is “a regulation or principle governing conduct or procedure within a particular sphere”. The ‘principle’ mentioned in the definition encompasses non-formal rules and the internal dimension of rules, as discussed above.

Although general-purpose dictionaries are not necessarily the best reference for scientific usage, the fact that the common man can easily relate to the proposed meanings is a positive indication.

Therefore, the term ‘rule’ will be used in the remainder of the thesis, encompassing both formal and informal rules, and encompassing both external rules and the internal dimension of agents’ cognitive structures.

2.3.1.4 Beyond formal and external rules - a summary

Summarising this reflection on the ontology of rules, conceptualising rules (also) as internal structures, as cognitive representations by agents, definitely challenges the restricted concept of rules as (only) formal rules, like suggested at the start of this subsection. The consideration that the concept of ‘rules’ should go beyond formal rules and should also encompass informal rules, along with the acknowledgement that rules should also be considered in a perspective *internal* to the individual, places interesting challenges to researchers and justifies a greater interest on the topic.

Two final acknowledgements are required. First, a narrower conceptualisation of rules as formal rules, in line with some OIE research referenced at the start of this subsection, is not incorrect and has its own benefits. However, what this section argues is that a different and broader definition may be preferable. Second, the seminal findings about *routines* (another central component of OIE models, as overviewed in the previous section) should not be underestimated. The concept of ‘routine’ has had an overwhelming importance in understanding organisations and organisational life, fuelling an impressive amount of research about routines and routinised behaviours, as

this chapter has already evidenced (see also the various contributions in Becker, 2008b). However, on the other hand, it is argued next that the focus on routines may have been overemphasised, at the cost of neglecting other concepts – such as rules.

The two following subsections develop two lines of arguments. The first line of argument argues that rules can be seen to underlie routines, hence pressing for a greater attention to the concept of ‘rules’. The second line of argument argues that rules are not only an underlying component of routines, but indeed an essential – though neglected – component of an institutional explanation of organisational life. In particular, rules may explain human behaviour in particular situations which the concept of routine is unable to address – in particular, for the simple and plain reason that rules may be in place for actors to draw on, in situations of *absence* of routines.

2.3.2 RULES UNDERLYING ROUTINES

The previous section analysed the insights from the cognitive revolution, highlighting the importance of routines and replacing decision-making models of *mere* choice by models of *taken-for-granted expectations*.

However, these alternative decision-making models of taken-for-granted expectations still incorporate *rules*. In fact, these alternative models still assume that “actors associate certain actions with certain situations by *rules* of appropriateness” (March and Olsen 1984: 741) (...). Individuals face choices all the time, but in doing so they seek *guidance* from the experiences of others in comparable situations and by reference to *standards of obligation*” (DiMaggio and Powell, 1991a, p. 10, emphases added). Such search for “guidance” is, in fact, a search for rules to be enacted and

applied in the particular circumstances of the actor, even if those rules are inspired and based in the experiences of other actors. In addition, the mentioned “standards of obligation” are particular rules, either formal or informal, as internalised by the actor.

The first section, after reviewing the various conceptions of routines in the literature, concluded by arguing that rules are implicated in *all* those conceptions of routines (dispositional, ostensive, performative and material). Such argument is now justified in more detail. In the alternative of restricting the concept of routines to *generative dispositions*, orienting agents, Johansson and Siverbo (2009) highlighted that “routines can be expressed as rules” (p. 148). As discussed in this section, (accepted) rules, as part of agents’ ‘internal structures’, also influence agents’ dispositions towards actions.

Rules also underlie both dimensions of ostensive and performative routines. As regards the *ostensive* dimension of routines, it also has underlying rules, given its guiding properties. Indeed, the characteristic of guiding behaviour is shared by both rules and the ostensive dimension of routines, leading Quinn (2010, p. 295) to concede that “[i]t could be argued that the ostensive aspect of a routine is similar to an informal (undocumented) rule”¹⁵. As regards the *performative* dimension of routines (i.e., of routines as behaviour), the underlying rule being enacted (albeit in a routinised way) should not be ignored; as mentioned above, this perspective concerns programmatic *rule-based* behaviours. Finally, Volkoff *et al.*’s (2007) discussion on the *material* aspect of routines actually concerns the multiple *rules* underlying routines being hard-coded in information technology. Although they do not mention ‘rules’ in their paper, their

¹⁵ Quinn then differentiated both based on his assumption that rules had to take a formal, documented nature. However, the discussion below identifies a key criterion to distinguish between rules and the ostensive dimension of routines: the repetition of behaviours.

definition that “[o]rganizational routines are embedded in the ES [Enterprise System] in the form of system-executed transactions - sets of explicitly defined steps that require specific data inputs to automatically generate specific outcomes” (p. 839) reveals that they are referring to *rules* intended to define transactions and their sequence.

It therefore seems to be *impossible* to expunge rules out of the new emphasis on routines, routinised rule following, and routinised action. Routinely producing a monthly variance statement (an example of a routine in Burns and Scapens, 2000) is the enactment of a rule stating that such statement should be produced every month – *even if* potentially mostly unconscious, with no other justification than emulating past behaviour (a mimicry assumption which, as already noted, has been criticised).

Underlying rules still take a centre stage, both in the context of routines and even institutions. E.g., Burns and Scapens (2000) depicted the institutionalisation of routines as a process of disassociation with their particular historical circumstances (see also Seal, 2003). Since the abstract (or ostensive) aspect of a routine is a rule prevalent at a collective level, then an institution may also emerge from a similar process of disassociation between a prevalent rule and its historical circumstances. But even in that scenario, there is still a rule being enacted, albeit in a taken-for-granted way, and indeed operating as an important internal structure as regards the agents’ behaviour. Similarly, Hodgson (2006), despite his emphasis on routines and habits, proposed a broad definition of institutions as “systems of established and prevalent social *rules* that structure social interactions” and claimed that the importance of institutions “involves the recognition that much of human interaction and activity is structured in terms of overt or implicit *rules*” (p. 2, emphases added).

In a nutshell, *even if a rule becomes taken-for-granted* (a frequently noted characteristic of institutions), *it still remains a rule*. Understanding the underlying rule shaping abstract routines and dispositions and the series of concrete actions (as routinised behaviours) should therefore be a key issue for institutional theory researchers.

A concern on the rules underlying routines is still relevant even if actors do not fully recognise those rules or draw upon them without complete *consciousness*. Rules, as interpretive schemes or value norms (i.e., as structures of signification and legitimation, in Giddens' theory) can potentially become *unrecognised* by agents. As Scapens and Macintosh (1996, p. 680) recalled, when particular “systems become institutionalized organizational practice and a taken-for-granted part of the organization's lifeworld, the signification, legitimation and domination dimensions may not be explicitly recognized by organizational participants, even though they are drawn upon in day-to-day activity, through the duality of structure”. Clearly, rules being unrecognised by agents (albeit influencing and being reflected in individuals' actions) do not make them a less relevant research focus – on the contrary.

It should be acknowledged that institutionalists are usually cautious to recall that actors engaging in routinised behaviours are not “institutional ‘dopes’” “neither mindless nor senseless; rather, actors reflect on rules, ostensive routines, and context etc. to make sense of what they are doing or what they intend to do” (Quinn, 2010, p. 234; cf. Lounsbury, 2008). As Busco (2009) recalled, Giddens emphasised that agents are both *purposive* and knowledgeably reflexive (cf. Clegg, 1989). Moreover, as already noted, there are *multiple levels of consciousness* (Hodgson, 1988) and Giddens' distinction between practical consciousness and discursive consciousness is useful.

Practical consciousness is related to an agent's knowledge, potentially taken for granted and unnoticed – yet existent, nonetheless. On the other hand, *discursive* consciousness is related to an agent's ability to verbally express their knowledge – an ability which may not exist as regards tacit aspects of practical consciousness (Coad and Herbert, 2009).

Therefore, as regards the impacts upon behaviour, the most decisive aspect is *practical* consciousness, which the agent deploys in everyday social interactions, drawing in the agent's internal, cognitive structures, i.e., the agent's rules. As Coad and Herbert (2009) argued, there is a need to supplement Giddens' work, by emphasising “the *content* of what people might know”, “the theories of action” (p. 181) upon which they draw.

The above analysis highlighted the importance of rules, in as much as they underlie routines and even institutions. The next subsection discusses another potential effect of rules which warrants rule crucial importance: rules influence behaviour *even when, and particularly when, there are no routines*.

2.3.3 RULES WHEN THERE ARE NO ROUTINES – FILLING A GAP OF ROUTINE-BASED FRAMEWORKS

2.3.3.1 Recurrence: necessary for the existence of routines...

This section has highlighted some close links and even similarities between routines and rules. Several researchers defined routines as cognitive regularities or cognitive patterns, in a sense which approaches the concept of rule endorsed in this section. Other researchers opted to define routines as propensities to act in a certain

way, by generating favourable dispositions towards carrying out certain actions – i.e., similar effects to those produced by the rules operating as internal structures of individuals, which also orient individuals in their actions and social interactions. Indeed, as this section argued above, rules underlie routines.

However, the concepts of routines and rules are not synonymous. Indeed, one of the crucial differences to be now explored is derived precisely from a *key* characteristic of routines: *recurrence*. As Becker (2004) noted, based on a wide literature review (see also Quinn, 2010), “[t]he only commonality amongst [the various definitions of routines] is that they have to do *something* with repetition or regularity” (p. 664, emphasis in the original).

Indeed, recurrence of behaviours is required *both* to create a routine *and* to maintain it. *Previous* recurrence of behaviours is required so that one can evoke the concept of routine in the first place – indeed, *any* of the alternative concepts, even those which are not within the realm of action. Realistically, “one would be hard pressed to call something happening only once a routine” (Becker, 2004, p. 646). In addition, even after having been constituted (in whatever ontological form, according to the various alternative concepts), a routine needs recurrent performance to be sustained. As Feldman and Pentland (2003) argued, “without on-going performance” of a routine, the performative dimension disappears and *even* the ostensive definition, though it may *still* exist, “becomes meaningless” (Feldman and Pentland, 2003, 108). Therefore, without recurrent performance, even the ostensive dimension of a routine “may diminish over time, or even disappear” (Quinn, 2010, p. 296).

It should be noted that the differences between rules and routines, *as regards the issue of recurrence*, do not derive from different levels of analysis (individual or collective). In fact, the requirement of recurrence is equally applicable to the concept of *habit* - the individual-level equivalent of a routine (Becker, 2004; Burns and Scapens, 2000). “[R]outines relate roughly to organisations as habits relate to individuals. (...) Habits are formed through repetition of action or thought. They are influenced by prior activity” (Hodgson, 2003, pp. 356 and 372)¹⁶. Adapting Becker’s (2004, p. 646) expression above, it is unreasonable to call a habit to “something happening only once”.

The requirement of *recurrence*, or *repeated occurrence*, clearly restricts the field of application of the concept of routine. If a particular issue has never occurred, actors have never performed any actions related to that particular issue. In the *absence of previous repetition of behaviours* regarding a *particular issue*, *no routine exists*. Likewise, *if a routine ceases to be performed*, *even its ostensive dimension may diminish or disappear* (Feldman and Pentland, 2003; Quinn, 2010).

If we exclude routines, what concepts are there left in OIE models to explain behaviour? Rules may be an answer. But then, if rules are conceived as merely codified, formal rules, external to the individuals, then there is a glaring gap between those ‘external’ artefacts and human behaviour (as discussed above, the gap concerns the internal mechanisms orienting human behaviour).

In the absence of a routine addressing that particular issue and given the limits of formal rules, we are left with institutions, the macro component of OIE models. At first

¹⁶ This parallel between the concepts of routine and habit is valid in all alternative definitions presented in this chapter. Hodgson’s adoption of the specific alternative of defining routine – and hence habit – as a propensity does not affect the generalisation of the parallelism between both concepts.

sight, it might be considered that institutions could provide a solution, since institutions also comprise rules (though, it should be noted, *not* in a formal, codified way, given the very nature of institutions). In addition, given the deeply settled and taken-for-granted nature of institutions, they are most likely to be enacted by actors. However, that very same requirement of being deeply settled and taken-for-granted severely restricts the sheer ‘number’ of institutions that may exist (assuming they could be ‘counted’) and restricts the scope and detail of existing institutions. Recognising such limitations, Burns and Scapens (2000) did not directly link institutions and actions; instead, they argued that “rules and routines act as the modalities which link the institutional realm and the realm of action” (p. 10). Indeed, since institutions are the most abstract component of the model, it seems reasonable resorting to other concepts to relate that abstract level with the level of action.

Therefore, the explanatory power of routines in institutional theory is – quite obviously - limited to those situations in which *previous* instances of human behaviour in similar situations have *recurrently* occurred *and* whose repetition led to their routinisation.

Recurrence, or *repeated occurrence*, is not only the *only* common characteristic among the various definitions of routines. It is also a striking - and crucial - difference as regards rules, as analysed next.

2.3.3.2 Recurrence: ... but not necessary for the existence of rules

Rules, as internal structures of individuals, do not necessarily derive from repeated occurrence of behaviours. It is acknowledged that it is plausible, as Burns and

Scapens (2000) suggested, that repeated behaviours *may* create (ostensive) routines - which may be conceptualised as rules – and then eventually even be codified as (formal) rules. However, they did not claim explanatory exclusivity, and did not claim that all rules which individuals draw upon in their social life derive from previous behaviours.

In fact, actors may draw on specific rules for a number of *other* reasons, other than due to routines. One approach draws on a Parsonian account of human behaviour, which deeply shaped OIE, as already argued in page 57. This approach emphasises the individuals' evaluative judgment based on wider values, norms and attitudes, largely a result from the commitment derived from socialisation. Rules are, above all, *morally accepted*.

Ribeiro (2003), on the other hand, drew attention to a more *calculative* perspective of human behaviour, in which individuals may enact certain rules according to strategic purposes, rather than genuine internalisation and moral acceptance of those rules (also: Boland, 1996). This possibility of calculative order, nonetheless, challenges a 'downward causation' from institutions (putatively embedding shared values) upon individuals.

This discussion is continued later in the thesis. For the moment, the crucial conclusion is that, unlike routines, rules do not derive *necessarily* from past behaviour. Past, recurrent behaviour may not *constitute* rules, and rules may be *constituted* by factors *other than* recurrent, past behaviour. A rule may be a part of an individual's internal structure *without* the underlying prescribed action having *ever* been performed, as briefly discussed above.

The argument that rules do not derive *necessarily* from past behaviour does not mean, of course, that past behaviour (*any* past behaviour, and particularly past and recurrent behaviour) may not leave its mark on actors and their rules. The importance of past actions is, e.g., reflected in the related notion of path-dependency, a notion shared by both OIE and NIS streams of institutional theory (see, e.g., Becker, 2004; Burns, 2000b; Burns and Scapens, 2000; Coad and Cullen, 2006; Coad and Herbert, 2009; Modell *et al.*, 2007; Nelson and Winter, 1982; Powell, 1991 for various positions and perspectives on path dependency). Indeed, a potential research avenue is exploring how routines and rules (as agents' internal structures) may evolve in a *cumulative interaction*. This perspective is not explored in depth in this thesis. However, in discussing and acknowledging the limitations of a framework proposed in section 8.2 (Figure 8.2: An ANT-inspired, OIE model of rule-based action), in page 625, some lines of development are suggested.

2.3.3.3 Rules when recurrent actions do not develop into routines

Finally, it should be noted that past behaviour does not necessarily translate into the development of rules. This applies to all conceptions of routines. In a conception of routine as a 'recurrent behavioural pattern', past behaviour may not be as 'sufficiently' recurrent as to qualify as a pattern (the 'degree' of empirical recurrence required for such qualification is, clearly, not amenable to an easy quantification). In the conceptions of routine as a 'cognitive representation' or a 'disposition', the emergence of such cognitive representations or dispositions is also not guaranteed to occur after (any given number of) reiterations of past behaviour.

Although the ‘cognitive revolution’ highlighted that much behaviour is routinised (Cyert and March, 1963; March and Simon, 1958; see DiMaggio and Powell, 1991a; Hodgson, 1988), some authors are cautious about not exaggerating their claims about the extent of routinisation. “Routines (...) comprise ‘programmable’, rules-based behaviour (...) grounded in repeatedly following such rules. (...) The above is not to say, however, that all accounting becomes routinised (...), but that there is potential for routinisation (...) to occur” (Burns, 2000a, also cited by Yazdifar *et al.*, 2008).

Therefore, routines may not emerge *at all* (as noted in the above paragraphs) and surely do not emerge *immediately* (due their *sine qua non* requirement of recurrence, as discussed further up in this subsection). Consequently, devoting greater attention to rules may be useful to account for empirical situations in which routines have not emerged, or not yet emerged.

2.3.4 ROUTINES AND RULES, THE COLLECTIVE AND THE INDIVIDUAL

This section argued that a rule has differences – despite significant similarities – as regards an ostensive routine, or the “cognitive regularity” associated by Becker (2004) to the concept of routine. Becker is indeed right in highlighting that a routine can be seen as a rule – because there is indeed a rule underlying routines. The ensuing analysis considers how routines and rules are related with collective and individual cognitive processes, and how the possibility of collectively shared meanings and values has been taken by researchers drawing on Giddens. Seal (2003) noted that both types of cognitive processes (individual and collective) “may (...) be combined through the *duality of structure* as agents interact with a wider realm of institutions” (p. 97,

emphasis in the original), but recognised that institutional theory privileged collective level influences and processes, rather than individual level ones.

As already noted, *routines* should be associated with the *collective* level (in turn, *habits* are the equivalent concept for an individual level). This association was particularly useful for much OIE-inspired research, because it resonated with the notion that certain structures at an organisational level (foremost, institutions, but also stable routines) influence the collective of organisational members, capturing them in their ‘web’ (Burns and Scapens, 2000; Hardy, 1996) of shared meanings and beliefs. This is in line with Seal’s (2003) remark about the focus of institutional theory on organisational, collective cognitive processes promoting isomorphism. Shared meanings and interpretations are a cornerstone of many institutional approaches, in particular those relying on Macintosh and Scapens (1990) and Scapens and Macintosh (1996).

When it comes to rules, there is an intrinsic *individual* dimension (although, as argued below, a collective dimension should also be considered). Rules are known, interpreted, accepted and enacted by actors – or, similarly but in the opposite perspective, rules are *unknown*, interpreted in *various* ways (*‘misinterpreted’*, other actors might argue), *not* accepted and *not* enacted by actors. Becker (2004) implicitly noted this point, when he expressed his concern that much research neglected “agency in the executing of behavior patterns, or in the process of expressing rules in action” (p. 663). The interpretation of rules by agents is a crucial and indexical process – as argued above in this section, in page 55, rules are indexical regarding the interpreters and regarding the context of interpretation. Individual cognitive processes (Seal, 2003) and the actual enactment of rules by agents are at stake, but institutional theory has tended not to focus on these more *ad hoc* processes.

Returning to Seal's (2003) quote above, in Giddens' structuration theory, "macro-institutional influences (...) interact with the more micro practices of reflexive actors in the duality of structure" (p. 97), promising to combine both levels (individual and collective) of cognitive processes. However, strong disagreements have developed about the potential existence of shared meanings, interpretations and beliefs in structuration theory – a Parsons-inspired interpretation endorsed by Macintosh and Scapens and researchers who drew on their work, but contested by Boland (1993 and 1996). Boland emphasised that the Parsonian emphasis on internalised shared values and beliefs (see above in this section) was actually contested in Giddens' work. Boland quoted Giddens (1984, p. xxxvi) himself: "a radical break has to be made with Parsonian theorems", since "Parsons leaves no real room for the agency of the actor" (Boland, 1996, p. 694). As an alternative interpretation, Boland stressed the ongoing and contingent nature of human interpretation and enactment of rules, hence granting greater prominence to agencies.

These conflicting views are yet another episode of the perennial discussion about action and structure. It is hardly a novelty that two sides exchange accusations that the other part overrates and underrates the voluntaristic side of human behaviour (in this case, Scapens and Macintosh, 1996 and Boland, 1996, respectively). However, the OIE research stream distinctively emphasises the '*institutionalised* individual', and this indeed suggests a greater emphasis on the constraining effects of structures – in spite of the claim of Scapens and Macintosh (1996) that both elements are essential, as noted in the first section.

In this work, it will not be contended that there is no possibility to exist convergence of meanings and cognitive structures across organisational members.

Instead, the point to be made is related with the imagery associated with the notion of shared meanings and beliefs creating a *truce* in organisational conflict, in a Parsonian vein (Becker, 1998 and 2004; Nelson and Winter, 1982; Scapens, 1994). Such a convergence may be possible – but tends to require efforts from actors to ensure such convergence among and across individual actors, a convergence which remains fragile and potentially contestable. As further discussed during the analysis of Clegg’s (1989) framework in the next chapter, this stabilisation of rules of meanings and membership (closely resembling Giddens’ interpretive and normative rules) is indeed permanently fragile and contestable. This stabilisation of rules (in the sense of agents’ cognitive structures) is dependent on the actual securing of the centrality and unavoidability of a network of reinforcing structuring devices – among which, in a quite recursive way, the *network* of the extant rules.

In addition, rules can also be identified *beyond* the merely individual level. This section has tended to privilege the use of the nouns ‘agent’ or ‘actor’, rather than ‘individual’. The nouns ‘agent’ and ‘actor’ are recurrently found in OIE, so no violence is made against prevalent terminology. However, these two terms also accommodate the adoption of a collective level perspective. This collective perspective does not represent a mere sum of individuals. Instead, it allows conceptualising how rules are interpreted, interpreted, accepted and enacted by a collective of actors, *as a collective*. Importantly, it allows considering a *collective* conception of *agency*.

A collective concept of agency is relatively scarce in institutional theory. Section 2.1.2 noted that NIS views organisations as *collective* social actors (Scott, 2002), but it also noted that NIS tended to view organisations in a unitary, black-boxed way – neglecting individuals’ agency. Section 2.1.3 analysed how OIE focuses on processes

involving *individuals*, including the ways in which common traits may emerge within a collective of individuals populating a certain local community (DiMaggio and Powell, 1991a). However, OIE authors typically refrain from granting agency to collective entities such as organisations (see, e.g., Hodgson's position in his correspondence with North, in Hodgson, 2006).

However, *collective* processes of sense-making, of the construction of shared, collective objectives, beliefs, meanings, learning and knowledge have been topical research areas (some examples are Boyce, 1995; Busco *et al.*, 2006; Callon, 1986; Hansen and Rennecker, 2010; Nonaka, 1994; Okamoto, *forthcoming*; Quattrone and Hopper, 2006; Shrivastava, 1983). A particular theoretical approach has fuelled a significant stream of research granting agency not only to individuals, but also to *collective* entities (and also to non-human entities, as analysed later): *Actor-Network Theory* (ANT). This important theoretical perspective is developed in the next chapter, in section 3.4, and is instrumental to widen the scope of entities capable of agency in OIE.

In addition, and as argued later, convergence across actors, as members of an organisation, as regards their objectives, beliefs, meaning, etc., impinges directly on issues of *power* in organisations. Power can also be seen to underlie important debates in institutional theory (e.g., the power of institutions and structures vs. the power of agents). Power is a controversial topic which has been very differently dealt with within the literature, including institutional theory. The topic of power is indeed considered as a main research avenue in OIE, and is introduced in the next section.

2.3.5 THE PROPOSED EMPHASIS ON RULES: SUMMARY, ACKNOWLEDGEMENTS AND NEXT STEPS

The concept of routines has had (justified) central presence in institutional theory, which has not been contested in this section. However, there have been criticisms that institutional theory has tended to overemphasise the taken-for-granted, relatively automatic and unconscious nature of routine behaviour. Moreover, the emphasis on routines, although not exclusive, has relegated alternative (and potentially more aligned with mainstream approaches) perspectives and factors into the background (and typically away from the abstracts of the papers). Such a relegated factor was ‘rules’.

Without questioning the relevance of routines, the above argument attempted to restore the centrality of the concept of ‘rule’ for institutional theory. It suggested that rules, if (re)defined as internal cognitive structures, gain a greater explanatory power. Rules, as internal cognitive structures, are ubiquitous, not only underlying other components of the models, but also in empirical instances not addressed by the other components – in particular, when there are no routines. Indeed, a potential research avenue was suggested to explore how routines and rules (as agents’ internal structures) may evolve in a *cumulative interaction*.

Indeed, an acknowledgment should be made. There is no claim in this work to produce a meta-theory, intending to encompass all the influences upon behaviour. In particular, this chapter has emphasised the influence of rules and therefore was, assumedly, unbalanced as regards the relative attention given to the various components of OIE models, such as Burns and Scapens (2000). This greater attention devoted to

rules is a consequence of the perceived need to redefine the concept of rules and tease out their importance, when compared to prevalent approaches. However, it should be acknowledged that as this section granted a greater focus to a particular component, it risked creating the very same unbalance it initially contested. It is not intended to lessen the role of the other components, such as routines, let alone institutions. Although focusing on agents' need to perform 'interpretive work', the social and institutional dimensions of that interpretive work should not be ignored (Scapens and Macintosh, 1996). But there is always the risk of such perceived outcome. After all, this permanent tension may well be a transversal feature of the perennial debates about action and structure, which may not go away anytime soon, if ever.

Action and structure are, indeed, a recurrent topic in institutional theory. Other, not unrelated topics, recurrently attract institutional theorists' attention. Stability and change is certainly one of them. On the other hand, power, a concept occasionally mentioned in this chapter, has been often ignored by some streams of institutional theory – although it can be considered to underlie the previous two popular coupled-topics of 'action and structure' and 'stability and change'. The next section introduces this controversial topic, locating it within institutional theory, and the next chapter then develops a wider analysis of power.

2.4 A RESEARCH AVENUE IN OIE: A RENEWED EMPHASIS ON POWER

2.4.1 POWER IN DEBATES OF INSTITUTIONAL THEORY

Fundamental notions and debates in institutional theory can be stated in explicit power terms. In a very simplistic way, the debate in institutional theory as regards structures and actions can be phrased as the power of ‘structures’ vs. the power of ‘agents’. Another perennial debate, both within NIS and OIE, concerns the opposition (or intertwinement) of stability and change (e.g., Burns and Baldvinsdottir, 2005; Droege and Johnson, 2007; Lukka, 2007; Modell *et al.*, 2007; Seo and Creed, 2002; Siti-Nabiha and Scapens, 2005). This stability and change debate can be phrased as the power of factors stabilising institutions vs. the power of factors (and, in particular, actors) inducing institutional change, and how those powers can become interrelated.

For example (and without getting into details about concepts of power), an important stream of OIE would argue that prevailing institutions have the *power* to shape the behaviour and beliefs of institutional participants and have the power to stabilise the institutional context. The popular paradox regarding institutional change triggered by institutionally embedded actors (e.g., Burns and Baldvinsdottir, 2005; DiMaggio and Powell, 1991a; Holm, 1995; Seo and Creed, 2002) could be stated as whether or not internal actors have the *power* to change their institutional context - considering that they (supposedly) share the beliefs, world views and *interests* which make up the prevailing institutions. But how can institutional inhabitants free themselves from the prevailing embedding structures, i.e., institutions? Finally, agents’ interpretive work concerning rules and the inherent indexicality of the latter is also a

facet of the *power* of those agents to determine their actions and is another contribution to the stability vs. change debates.

The (admittedly telegraphic) analysis of Giddens' theory of structuration developed above in this chapter only briefly alluded to power, which is conceptualised to derive from structures of domination. Considering that domination is one of three structures in Giddens' framework, he did attribute a relevant place to power in his meta-theory, and not merely in trivial ways. As an example of the sophistication of Giddens' analysis of power, the identification of the powerful actors is not straightforwardly related with *formally* powerful actors – in fact, the notion of duality of control suggests that subordinates are always capable of influencing their superiors, in all forms of dependence.

However, in institutional theory discussions, power has often not been mentioned, mentioned somewhat tangentially or lost a central stage. E.g., following Clegg *et al.* (2006), an early institutional theorist (Silverman, 1970) influenced contingency theory through Child's (1972) focus on 'strategic choice', depicting organisations as a result of choices made by a dominant coalition. However, after the revival of NIS through Meyer and Rowan (1977) and DiMaggio and Powell (1991a) (first published in 1983), the NIS branch of institutional theory lost the focus on power. Therefore, the way NIS and OIE have dealt with power are analysed separately, next.

2.4.2 POWER IN NEW INSTITUTIONAL SOCIOLOGY (NIS)

NIS has tended to simplistically downplay power, politics and conflicts of interests as peripheral, both within and across organisations (DiMaggio and Powell,

1991b; Hopper and Major, 2007; Siti-Nabiha and Scapens, 2005). Some researchers argued that “institutional theory has focused on institutionalisation as an outcome rather than a process and as a result has neglected the role of power (Abernethy and Chua, 1996; DiMaggio, 1988; Zucker, 1987) and group interests (Perrow, 1985, 1986). Institutionalization, as an outcome, places organizational practices and characteristics beyond the reach of interests and politics” (Dillard *et al.*, 2004, p. 510); see also Burns (2000a). In a related, but slightly different perspective, Hensmans (2003) interestingly suggested that NIS’s traditional focus was actually a *response* to the OIE focus on intra-organisational change and power. This led to NIS’s purpose of *showing that* dominant organisational arrangements were reproduced through collective interactions among organisations, rather than *examining how* new arrangements were constructed through strategic agents. Ultimately, this focus on isomorphic pressures and homogenisation led NIS to neglect how strategic agency could thrive.

Moreover, it is important to distinguish between the three mechanisms of institutional isomorphism (mimetic, coercive and normative isomorphism, as suggested by DiMaggio and Powell, 1983, republished in 1991b). Mizruchi and Fein (1999) (also cited by Clegg *et al.*, 2006) suggested that researchers drawing on DiMaggio and Powell’s (1983) seminal work tended to focus on mimetic isomorphism, at the expense of neglecting the coercive and normative concepts also present in the original framework. In fact, the seminal (1983) framework of NIS proposed by DiMaggio and Powell encompassed theoretical concepts clearly dealing with power issues. Nevertheless, the NIS field evolved into a different direction. Recognising such limitation, DiMaggio and Powell (1991a) clearly stressed the need to “place interests

and power on the institutional agenda” (p. 27). Such calls have been finally met, more recently.

Indeed, several studies (re)introduced power concerns in NIS, such as Carruthers (1995), Dugger (1990), Hensmans (2003), Hopper and Major (2007), Siti-Nabiha and Scapens (2005), and studies included in the special issue of the *Academy of Management Journal* (45(1), 2002). In particular, Hensmans (2003) identified the early nineties as the approximate time when NIS started expanding its scope, trying to produce “strategic insights”, by extending its “‘limited theory of action’ (Fligstein, 1997: 397), and emphasising the role of diversity (Kondra and Hinings 1998), power, and agency (Beckert 1999; Greenwood and Hinings 1996). (...) [Therefore, NIS focus shifted to the] study of fields as arenas of power dependencies and strategic interactions” (Hensmans, 2003, p. 356).

As a conclusion, NIS evolution is related with the paradox of institutional change triggered by embedded agents (see above) and, in general, with the wider debate about structures and agency. In particular, the neglect of power may have contributed to this paradox and to the neglect of agency, while the recent uptake of the topic may contribute to overcome some of NIS limitations.

2.4.3 POWER IN OLD-INSTITUTIONAL ECONOMICS (OIE) – A PARADOX TO BE ADDRESSED?

The relationship between OIE and power is a complex one. On one hand, DiMaggio and Powell (1991a) considered that OIE “was straightforwardly political in its analysis of group conflict” and emphasised “the vesting of interests within

organizations as a result of political tradeoffs and alliances” and the subversions caused by “parochial interests” (pp. 12-13). Similarly, Clegg *et al.* (2006) restricted to NIS (rather than OIE) the distancing as regards the concept of power. Burns (2000a, p. 571) stated that “[p]ower and politics is (...) integral to any OIE-grounded explanation of life’s ongoing processes - i.e. part of OIE’s core methodological underpinnings”. Several OIE works explored internal power struggles, conflicts and resistance (e.g., Burns, 2000a; Ribeiro and Scapens, 2006; Robalo, 2007; Siti-Nabiha and Scapens, 2005; Yazdifar *et al.*, 2008). Robalo (2007) argued that Burns and Scapens’ (2000) OIE framework “has been particularly effective in studies where power, politics and vested interests are central” (p. 106).

However, on the other hand, this claimed close relationship between OIE and intra-organisational power, politics, conflicts and vested interests needs to be further discussed and justified. There appears to be a gap, a paradox, in the way much literature has claimed, in a quite taken-for-granted way, that there is an almost ‘umbilical’ relationship between OIE and intra-organisational conflicts¹⁷. This paradox emerges because the typical OIE definition of an institution, with its Parsonian emphasis on shared values and beliefs (Macintosh and Scapens, 1990; Scapens and Macintosh, 1996), does not seem “straightforwardly political” and it does not suggest the existence of intra-organisational conflicts - on the contrary.

In addition, although Burns (2000a) made clear that the organisation was merely one of the communities or groups the concept of institution could be applied to (see also Parkhe, 2003), much subsequent literature retained the parts of Burns’ (2000a) and

¹⁷ To simplify the discussion, ‘intra-organizational conflict’ will be used instead of ‘intra-organizational power, politics, conflicts and vested interests’.

Burns and Scapens' (2000) definition of an 'institution' which mentioned the organisational level. The association of the concept of an 'institution' with an organisation became very common (Abrahamson and Gerdin, 2006; Hardy, 1996; Yazdifar *et al.*, 2008). Therefore, much research focusing on the organisational level suggested that global acceptance of institutions is an expected characteristic of a given *organisation*, promoting intra-organisational homogeneity.

Based on such descriptions, if any hypothesis is to be made regarding intra-organisational conflicts, such hypothesis would be that such conflicts would be more *unlikely*, given the generalised acceptance of institutions by organisational members. Becker (1998, 2004) identified *truce* as a key function of routines. Scapens (1994) argued that the organisational actors' "content' to play their individual roles in the organizational routine [due to institutionalisation] (...) involves *overcoming intra-organizational conflict*. According to Nelson and Winter: '(...) routine operation involves a *comprehensive truce* in intra-organizational conflict' (1982, p. 110). (...) Truce 'tends to give rise to a particular symbolic culture shared by the parties (...) [and] the fear of breaking the truce is, in general, a powerful force tending to hold organisations on the path of relatively inflexible routine' (1982, p. 110-112). Thus, routines provide for both the reproduction of behaviour and the *cohesion* of the organization" (Scapens 1994, p. 311) (emphases added).

It is acknowledged that, if institutions promote "a comprehensive truce" and "cohesion" in the organisation through the sharing of certain beliefs among all organisational members, then in some way institutions are *involved* in conflicts. However, institutions have an influence by *overcoming* those conflicts, bringing truce and 'peace' to the organisation. The paradox emerges because the literature suggestion

that OIE's approach is "straightforwardly political" (as mentioned above) does not evoke an imagery of 'peace'. On the contrary, it suggests an imagery of open conflicts and power struggles, in which institutions are at the core or are even devices used by actors in those disputes. Indeed, going back to the seminal work of Nelson and Winter (1982), these authors did *not* endorse the view of an absence of divergent interests across organisational participants preventing intraorganisational conflicts: "Conflict, both manifest and latent, persists, but manifest conflict follows largely predictable paths and stays within predictable bounds" (p. 110).

This paradox regarding the relationship between OIE and intra-organisational conflicts seems to require more research: on one side, into institutional theory; and, on the other, into theory about power (and related topics of conflicts and interests). There seems to be potential to improve our understanding of institutional theory by a more adequate grounding on power theories. For example, the next chapter discusses several 'faces' and 'dimensions' of power which conceptualise power and conflict as having different levels of visibility.

2.5 CONCLUSION

This chapter analysed the main features of institutional theory, the starting theoretical framework for this study, providing fundamental theoretical lenses for interpreting the case study, and to whose development this thesis attempts to contribute. After noticing the heterogeneous nature of the field of institutional theory, this chapter briefly depicted, in broad traits, the field of New Institutional Theory (NIS), typically focused at macro levels of analysis. Then, this chapter proceeded to analyse Old-Institutional Economics (OIE), whose more micro level of analysis, typically at

organisational level and below, provides more adequate sensitising lenses for the adopted research questions and empirical study.

The second section started by depicting the seminal OIE framework of Burns and Scapens (2000). Then, particular attention was devoted to routines, a component of their model highly emphasised in the literature and undergoing substantial debate as regards its ontological definition. The literature has considered routines as *either* (and sometimes as *both*): behaviours; rules; dispositions (Becker, 2004). In addition, Volkoff *et al.* (2007) added that routines may have also a material dimension. This heterogeneity has created substantial theoretical and empirical ambiguities and difficulties, but a common trait was detected: *rules* can be seen to underlie, in different ways, all conceptions of routines. However, it was noted that the often, narrow conceptualisation of ‘rules’ as *formal* rules was not well suited to provide the basis for such association between rules and routines. Therefore, further conceptualisation work on rules was required.

The third section made the case for dedicating closer attention to *rules*, an often neglected component of OIE models. This neglect was partly traced to a narrow definition of rules as *formal* rules. Therefore, the section started with a discussion on the ontology of rules, arguing for the need to encompass also *informal* rules and, above all, to also conceptualise rules as *internal structures* of actors. Rules were conceptualised as a cognitive representation, internal to the actors, providing orientations for action to each agent. This placed actors’ ‘interpretive work’ of rules at a centre stage. While accepting that actors’ interpretation is influenced by the wider social and organisational context (including prevalent institutions), it was argued that rules are inherently indexical. There is indexicality regarding the interpreters, i.e., the agents; and there is

indexicality regarding the context of interpretation, i.e., the actual situation in which the rule is interpreted and potentially enacted. Furthermore, it was considered that the rules should also be linked with their usage, at the realm of action, in particular as a result of the developed interpretive work. Therefore, it was concluded that a holistic understanding of the role of rules should pay close attention to the perspective of actors' internal cognitive representations and enactment of rules.

This section also noted that, while rules can be identified underlying routines, rules may be at work in particular situations even when there are no routines. In particular, *previous recurrent behaviour* is a *sine qua non* requirement for the existence of routines, but not rules. Therefore, it was argued that a renewed emphasis on rules has the potential to increase the explanatory power of institutional theory, by providing it with tools capable to explain empirical situations not possible to address solely drawing on the concepts of routines, institutions and *formal* rules. Finally, it was noted that while routines are intrinsically related with a collective level, rules should be conceived at both an *individual* and a *collective* level. The inherent indexicality of rules can bring diversity to a micro level, based on varying interpretations. In addition, it was argued that the acceptance of collective entities as actors (as proposed by Actor-Network Theory) has great potential in understanding the operation of rules within organisations.

The fourth section introduced the topic of power. It was argued that power has not been a major and explicit concern in much institutional theory, although fundamental debates in institutional theory (e.g., between structure and action, stability and change, etc.) can be stated and explored drawing on the topic of power. This section was conceived merely as an introduction to the topic of power, as well as to establish its importance for institutional theory. Discussing power in some detail is a lengthy task,

and the next chapter is entirely devoted to it. With this discussion on power, and the subsequent deployment of institutional and power frameworks as theoretical lenses for the case study, the intention is to provide contributions for the development of both institutional and power theories, in particular by strengthening and developing the linkages between both areas.

CHAPTER 3 - POWER

3.0 INTRODUCTION AND OVERVIEW

The overall objective of this chapter is to critically analyse the main conceptions and frameworks of power¹, concluding with the adoption of Clegg's (1989) framework of 'Circuits of Power' as theoretical lenses for this study. The analysis of power developed in this chapter, along with the institutional insights developed in the previous chapter, are the bases for the interpretation and discussion of the case study carried out (chapters 5, 6 and 7) and the starting point of several proposals to develop institutional and power literature (chapter 8).

The importance of power is acknowledged by theorists from different strands. E.g., within the functionalist, mainstream literature, Pfeffer (1992) noted the centrality of power for organisational and individual success. On the other hand, within a non-functionalist, more critically-oriented strand of the literature, Clegg *et al.* (2006) thus argued for the importance of power in organisations. "What is organization but the collective bending of individual wills to a common purpose? (...) Power is inscribed in the core of organizational achievement. If it were not, (...) the social relations that constitute organization, the collecting together and coordinating of individual wills, endeavours, and energies, would not occur" (p. 2-3).

¹ Developing an in-depth review of literature about power is beyond the ambitions of this work. Works exploring in great detail the lineage of the different schools and concepts are Clegg (1989) and Lukes (2005). Ribeiro (2003) developed a very interesting discussion at an intermediate level of detail, similar to the level of detail pursued here; Wickramasinghe (2006) offered a short summary. Ribeiro's (2003) deeper, more creative and thought provoking analysis is followed more closely.

However, power is frequently restrictively associated with constraints and domination. The creative and positive facets of power are often ignored, and “people tend to shy away” from understanding power (Pfeffer, 1992, p. 8). Clegg *et al.* (2006), Pfeffer (1992) and Mintzberg (1983) converged in considering that investigating power has traditionally been a less considered research area. In particular, *business* research tends to ignore organisational power or to relegate and associate organisational power and politics to illegitimate behaviours (Clegg, 1989; Clegg *et al.*, 2006).

Within institutional theory, the topic of power has been emerging, although with an uneven importance, as discussed at the end of the previous chapter. This emergence can be traced both within NIS and OIE. In NIS, since the initial focus on power was very low, the rise can be said to be more noticeable. In OIE, power can be said to have a greater tradition; not always considered, but increasingly focused. The uneven importance – let alone treatment – given to power by institutional theory further justifies giving it close attention.

A reflection on the topic of power is particularly needed because, as this chapter demonstrates, the area of power is a complex and polyphonic one. Multiple, often contradictory approaches have been developed throughout the years – actually, throughout the centuries. A researcher approaching the field may be mesmerised by such diversity and Lukes (1974) described the concept of power as “essentially contested” (p. 14) (cf. Benton, 1981). This chapter intends to provide a needed overview of the topic and to adopt a theoretical framework to orient the ensuing empirical analysis.

This chapter is structured as follows. Section 3.1 overviews some conventional notions of power, which typically share the perspective of power as a cause of effects over others. These notions tend to underlie most research on power and even more ‘radical’ approaches, such as Lukes’ (1974, 2005). Section 3.2 then introduces alternative notions of power: power as a capacity (deterministic or not), as positive, as a variable to be explained (power and its cause) and dispersed and based on relational networks. Sections 3.3 and 3.4 build on the alternative notions of power introduced in section 3.2 to propose postmodern conceptions of power: Foucauldian and Actor-Network Theory (ANT) approaches, respectively. Section 3.5 presents – and adopts – Clegg’s (1989) framework, strongly inspired on Foucault and ANT and depicting a fluid, dynamic and multiform conception of power. Section 3.6 concludes the chapter. Throughout the chapter, and particularly at the end of the sections, links are established with the analysis of institutional theory carried out in chapter 2.

3.1 CONVENTIONAL NOTIONS OF POWER AND LUKES (1974):

POWER AS CAUSE, AS A CREATOR OF EFFECTS OVER OTHERS

3.1.1 THE ONE DIMENSIONAL FRAMEWORK - RESEARCHING THE VISIBLE

The classic concept of power derives from the intuitive and visual metaphor of clashing billiard balls, with one ball causing effects on others. As Ribeiro (2003) synthesised, for Hobbes (1839), in the XVII century, what was at stake was the power of an entity (an ‘agent’) to produce effects in another entity (the ‘patient’). Relations of power were causal, atomistic and mechanical, and relied on the action of a prime mover, the ultimate source of action, the ruling agent. Hobbes viewed the world as an ordered place, where legislation consolidated power and order, resting on science (as the

modernist justification) and monarchy (as the unambiguous personalised source of power). Ultimately, this would secure sovereignty to a powerful ruler. Hobbes emphasised that “*the power of the agent and the efficient cause are the same thing* (Hobbes, 1839, p. 127, emphasis added)” (Ribeiro, 2003, p. 59).

This empiricist view of power was further stretched by Hume (1969), who emphasised the need that the effects are caused by the *exercise* of power. A cause (i.e., power), in order to exist, requires its actual exercise, by producing actual effects. In other words, if there is no power exercise, there is no power.

Behaviourists as Robert Dahl followed the same empiricist line. Dahl (1957) proposed that “A has power over B to the extent that he can get B to do something that B would not otherwise do” and, in another expression, proposed that power involved “a successful attempt by A to get B to do something he would not otherwise do” (pp. 202-203, 204). Dahl’s studies focused in particular on concrete, *observable behaviour* and events, on the actual exercise of power producing those empirical effects - i.e., observable episodes of actors exercising power over other actors. As regards the opposite situation, when there is no possibility of observing hypothetical episodes of power, then those non-observable events should not be considered as causes.² Dahl and his supporters privileged methodological precision in measuring the produced effects, in a way to measure the power which caused them. Ultimately, the power of the causing agent A could be measured through the response of, or impact on, the influenced agent B.

² This is the usual interpretation about Dahl’s position. However, a notable exception is McLachlan (1981), who argued against the idea that Dahl’s conception of power required visibility. These alternative interpretations are analysed in the next subsection, during the discussion of the second dimension of power.

Dahl's conception might have been appropriately coined the 'visible-face' of power. Dahl's studies focused exclusively on visible behaviour, especially in explicit, concrete decision-making situations, over key important issues (e.g., Dahl's, 1957 empirical setting was the actions taken by the US Senators in their decision-making process). Such behaviour occurred within the context of observable and overt conflict between actors, according to their subjectively perceived interests³. Such (subjective) interests translated into policy preferences, which were publicly expressed through political participation. Because of Dahl's single focus, his conception was called as the 'single-face' of power (Bachrach and Baratz, 1962, 1975).

Lukes' (1974) framework is a major reference to conceptualise and compare various alternative conceptions of power. This framework, graphically expressed by Clegg (1989) in the following figure 3.1, proposed three dimensions of power. Dahl's 'single-face' of power, analysed in this subsection, is the first building block, or dimension, of Lukes' framework (the second and third dimensions are presented in the following subsections).

³ This notion of 'subjective' interests is clarified below in this section, when the opposite notion of 'real' interests is discussed within Lukes' (1974) three dimensional concept of power.

	The three -dimensional view incorporates the first, the second and a third dimension		
	The two -dimensional view incorporates the first and a second dimension		
	One-dimensional view		
Key elements	First dimension	Second dimension	Third dimension
Representatives and 'school'	Dahl 'pluralists'	Bachrach and Baratz 'elitists'	Lukes' 'radical view'
Methodologies of analysis	Objective observation	Interpretative understanding	Evaluative theorisation
Objects of analysis	Visible behaviour Concrete decisions Actual issues	Intentional action Non-decisions Potential issues	Interests in action Political agenda Both actual and potential issues
Indicators	Overt conflict	Covert conflict	Latent conflict
Field of analysis	Express policy preferences revealed in political participation	Express policy preferences embodied in <i>sub</i> -political grievances	Relation between express policy preferences and 'real interests'

Figure 3.1: Lukes' (1974, 2005) three dimensional framework (Source: adapted and expanded from Clegg, 1989, p. 90).

Dahl's field of analysis was at the level of express policy preferences revealed in political participation, which was considered to be free from constraints. Dahl's view was crucial in a political debate in the United States of America in the sixties, known as 'the community power' debate⁴. Dahl's defence of an equalitarian access to political participation supported the side of this debate which came to be known as *pluralists*. As

⁴ Lukes' (2005) introductory section provides an elucidating and brief account of this political conflict. See Clegg's (1989) chapters 3 and 4 for a lengthier discussion, and Merelman (1968) for a shorter account. This 'community power' debate is now dated and is not further developed here; only the main underlying arguments are used to support the construction of a wider theoretical framework on power.

synthesised by Lukes (2005), *pluralists* considered that different interest groups prevailed in different areas, and therefore power was distributed pluralistically across actors and interest groups.

Hobbes' and Dahl's mechanical and empiricist conceptions became building blocks for the mainstream view of power. It adopts a realist ontology (in the sense that "[i]t takes the empirical world, the world of experienced occurrences, to be the object of scientific investigation" (Isaac, 1987, p. 6), and a positivistic research approach (Cortese, 2006). "There is nothing but a flux of events whose only relationship is one of contingent conjunction. (...) [B]ecause the only meaning that can thus be given to causality is as empirical regularity, the task of scientific explanation becomes (...) the formulation of generalizations about empirical regularities which enable us to predict that 'Whenever A, then B.'" (Isaac, 1987, p. 6-7). The methodological assumptions and research methods, especially the emphasis on the measurement of visible events and other operational variables, "seemed to produce reliable" evidence and "conclusions which met the canons of science" (Merelman, 1968, p. 451; also Isaac, 1987).

3.1.2 THE TWO DIMENSIONAL FRAMEWORK – EXTENDING BEYOND THE VISIBLE

Authors like Peter Bachrach and Morton Baratz argued that the situations where Dahl researched power were too restricted (only visible exercises of power and only within decision-making situations). Without denying the existence of visible conflicts, Bachrach and Baratz (1962, 1963 and 1975) proposed an additional, less visible face of power: the one which keeps some actors (and their preferences) excluded from decision-making processes. This 'hidden' face of power is about 'non-decision making' – a

concept which had a great impact in the literature. This type of power, based on the control of the political agenda, would exist when an actor *A* contributes⁵ to the creation or reinforcement of barriers which prevent an actor *B* from making public any policy conflicts which would be detrimental to *A*'s interests. Therefore, power may involve more than simply interaction; it can also involve *limitations* on interaction.

As a result, actual decision-making processes would be biased: they would only deal with issues which are in *A*'s best interests, since *B*'s grievances would have been prevented to be expressed. Schattschneider (1960) inspired this view, when he wrote the widely cited quote that "some issues are organized into politics while others are organized out" (p. 71), therefore creating a 'mobilisation of bias' of the political agenda. Heightening the subject to an ontological level, Schattschneider (1960, p. 71) argued that "organization [itself] is the mobilization of bias", in the sense that certain kinds of conflict are accepted and explored (i.e., "organized into politics") while others are not accepted as valid and therefore suppressed (i.e., "organized out"). As Longaker (1961, p. 146) noted, Schattschneider emphasised the importance of controlling the "scope of conflict", when "leaders of an organization (...) attempt to expand or restrict the scope of conflict in order to best serve their cause".

Bachrach and Baratz therefore sustained that a more fundamental power could be under the control of a minority of actors: an *elite*, which would typically not be visible to the remaining actors. Theorists who shared this concern about the concentration of power among a 'ruling elite' become known as *elitists*. This movement

⁵ Only in later writings (Bachrach and Baratz, 1975) these authors came to accept that a mere *contribution* of *A* (to the creation or reinforcement of barriers) was sufficient to consider that *A* was exercising power. They acknowledged that their previous causal view of power, in Bachrach and Baratz (1970) and previous works, was "excessively stringent in implying that *A* exercises power only when it is a necessary and sufficient condition of gaining *B*'s compliance" (Bachrach and Baratz, 1975, p. 904).

of *elitists* was in strike contrast with the pluralists (who, as analysed above, claimed for the existence of an even distribution of power across interest groups)⁶. The differences between pluralists' one-dimensional view of power and elitists' two-dimensional view are visible by comparing the first two columns of Lukes' framework (figure 3.1, above), which contrast and synthesise the main characteristics of the two perspectives analysed so far.

A third perspective of power, proposed by Lukes (1974) and which encompasses the two dimensions analysed so far, are now discussed.

3.1.3 THE THREE DIMENSIONAL FRAMEWORK - QUESTIONING 'REAL' INTERESTS

Let us briefly take stock. The one-dimensional framework relied on observing visible behaviour, in concrete decision-making situations which involved overt conflict. The two-dimensional framework drew attention to less visible situations, through which powerful actors might prevent other actors to publicly air issues which might be detrimental to their interests. Therefore, those issues would never achieve public visibility and would not get to a decision-making stage. In this situation, conflict would actually exist, yet covert.

⁶ Classifying these theorists as 'elitists' may sound as a paradox, it may suggest that they defend the existence of an elite (given the common language meaning of the word 'elitism'), whereas in fact they are concerned about, and oppose, such situation. Bachrach and Baratz (1962) commented that sociologically oriented researchers tended to find that power was concentrated in an elite and labelled themselves as 'elitists'; on the other hand, political science researchers tended to find that power was widely diffused, and therefore labelled themselves as 'pluralists'. The 'elitists' label was, therefore, established in the literature - in spite of Merelman's (1968) plausible proposal to distinguish between 'elitists' (those who first proposed the existence of a 'ruling elite', such as Hunter, 1953 and Mills, 1956) and 'neo-elitists' (who emerged later in a reaction to pluralists, such as Bachrach and Baratz, 1962) (cf. Lukes, 1974).

The main thrust of Lukes' (1974, 2005) third dimension of power is its challenge to the notion that actors can subjectively know and express their 'real interests'. From a sociological perspective, Lukes claimed that broad social forces and institutional practices may constrain actors' minds so completely that they will not be able to identify (let alone express and fight over) what their interests 'really' are – i.e., actors develop a 'false consciousness'. As such, those broader forces have the power to make actors believe they have certain interests – which in turn favours the interests of other actors, the ones controlling those broader forces. "The supreme and most insidious exercise of power is to prevent people, to whatever degree, from having grievances by shaping their perceptions, cognitions and preferences in such a way that they accept their role in the existing order of things, either because they can see or imagine no alternative to it, or because they value it as divinely ordained and beneficial" (Lukes, 1974, p. 28⁷). In a similar vein, but without any connotations with a divine order, Tismaneanu (2001) (cited in Droege and Johnson, 2007, p. 86) labelled the infusion of most facets of Chinese society during Mao Zedong's rule as "the colonization of the mind" (p. 987-8).

This view has important consequences about how to conceptualise conflict. Both the first and second dimensions considered that there is *actual* conflict, be it either overt (within the first dimension) or covert (within the second). However, the third dimension suggests that actors may fail to gain awareness of their 'real interests' due to their 'false consciousness', therefore being 'alienated'. Then, the political agenda becomes even more controlled by the dominant actors. "The most effective and insidious use of power

⁷ Since Lukes (2005) includes Lukes (1974) as a first chapter, all henceforward page references to Lukes (1974) are based on the numbering of the second, 2005 edition.

is to prevent such conflict from arising in the first place” (Lukes, 2005, p. 27). In this situation, actual conflict (either overt or covert) will not emerge⁸.

In Lukes’ framework, the *absence of actual* conflict should *not* be considered as equivalent of a genuine consensus – something which later works of elitists accepted as a possibility, as Lukes (2005) noted on Bachrach and Baratz (1970). On the contrary, the shaping of dominated actors’ “perceptions, cognitions and preferences”, the hiding of their “real interests” and the creation a “false consciousness” would suppress conflict against the dominating actors, which would be exercising power through broad social forces. However, as stated, the resulting absence of actual conflict would not correspond to a genuine consensus.

In Lukes’ third dimension, conflict would still exist, yet in a merely latent state. In fact, Lukes argued that there would be a contradiction between the ‘real’ interests of the dominated actors (who nevertheless were alienated about those ‘real’ interests of them) and the interests of those exercising power. The existence of such a contradiction implies that if dominated actors somehow discover their ‘real’ interests, they may realise that their ‘real’ interests are unmet by the existing order. Therefore those now ‘enlightened’ actors would change their policy preferences and publicly express them. At this stage, the (until then) latent conflict would become an actual conflict.

Lukes’ complete, three dimensional framework (figure 3.1, above) can now be fully analysed. The comparison of the three columns provides a clear summary of the

⁸ Concepts as ‘real interests’, ‘false consciousness’ and ‘enlightenment’, as well as a focus on domination at a social level and on class struggles, are inspired by Marxism – although Lukes agreed that he had deployed them in a non-Marxist way. In his 2005 work, Lukes clarified (or rather, to be more precise, acknowledged) that the underlying concept in this third dimension was actually “the securing of compliance to domination”, rather than the broader concept of “power” (p. 109). This clarification is developed when an alternative, positive view of power is discussed in the next section

different concerns of each of the three dimensions discussed in this section. However, there are also important commonalities between the three dimensions. These commonalities are analysed next.

3.1.4 VIEWS ON POWER SO FAR: POWER BASED ON THE EFFECTS IT CAUSED, NEGATIVE AND LOCATED

Ribeiro (2003) pointed out that all three dimensions share some common traits. They all portrait power: 1) based on the effects caused by power, not based on its nature; 2) as negative, in the sense of being exercised *over* other actors; 3) as located, in the sense that the origin of the power can clearly be located. In fact, Isaac (1987, p. 13) noted that Lukes' "similarities with his predecessors outweigh his differences". Each of these common traits is now analysed.

The first common trait of the three dimensions resides on the fact that they tend to privilege the *effects* that power produces, rather than the *nature* of power *per se*. They are focused on effects that derive from the *exercise* of that power, that power *causes* or *has caused*. As highlighted by Isaac (1987), Lukes (1974, p. 30) himself recognised that they "can be seen as alternative interpretations and applications of one and the same underlying concept of power, according to which A exercises power over B when A affects B in a manner contrary to B's interests". Clegg (1989) emphasised that the figure he constructed to represent Lukes' framework (figure 3.1) was "designed to demonstrate visually how Lukes regards the second and third dimension of power as developing out of the underlying causal and episodic notion of one-dimensional power" (p. 91). Certainly, there are differences across the dimensions, as regards the ways of power is exercised (more visible, for pluralists; or less visible, for elitists and Lukes); and

whether the power is attributed more to the intervention of an agent (for pluralists and elitists) or to a broader system (for Lukes). However, the focus on the *effects caused* by the *exercise* of power is common to all of them. In brief, the underlying notion was considering ‘*power as cause*’, as an exogenous variable, in the line of Hobbes’ notion of ‘prime mover’.

The second common trait is the emphasis on the *negative* side of power. Power is conceived as being exercised *over* other actors, and it is therefore denying or diminishing the others’ power. The last part of Lukes’ quote just above is elucidative: “... in a manner contrary to B’s interests”. The result of such exercise is a zero-sum game, whereby gains of one actor are compensated by losses of another actor⁹. This win-lose situation is clear across all dimensions: for pluralists, a plurality of actors wins across different areas, with another plurality of actors correspondingly losing. For elitists, an elite wins by preventing the majority from airing opposing views and thereby remaining without any chance of winning. For Lukes (1974), the ruling class shapes the minds and interests of the other classes, hence dominating them. In all these dimensions, the ‘*power over*’ notion is central.

The third common trait of the three dimensions is that they all consider power as being *located* in some entity (or entities). It was always possible to identify the entity with power, the ‘sovereign’, the locus of will, the originating source of power. The pluralists identified the diversified interest groups which prevailed in different areas and moments. The elitists pointed out to the elite that rules, even though it might not be visible. Lukes proposed the society’s ruling class, controlling the broad social forces

⁹ Lukes (2005) later abandoned his initial position and also accepted non-zero sum games, as discussed in the next section.

which shaped the other classes. The three views can all be traced back to Hobbes's original concerns with the ruling agent, on the sovereignty of a powerful ruler.

These three common traits (viewing power as: based on the effects it caused, a consequence of its exercise; negative; and located), and particularly the characteristics of the first dimension of power, came to characterise the mainstream literature on power (Clegg, 1989; Clegg *et al.*, 2006; Hardy and Leiba-O'Sullivan, 1998). The most noticeable trait is probably the *negative* connotations attributed to power (e.g., Clegg, 1989; Hardy and Leiba-O'Sullivan, 1998; Mintzberg, 1983; Pfeffer, 1992). Cendon and Jarvenpaa (2001) argued, in a critical tone, that much literature "portrays the *exercise* of possessive power and *negative*, manipulative tactics" (p. 122, emphases added)¹⁰ and assumes "conflict to be a necessary condition for the exercise of power" (Hardy and Leiba-O'Sullivan, 1998, p. 454). E.g., politics was particularly criticised by Mintzberg (1983), describing it as "informal, ostensibly parochial, typically divisive and, above all, illegitimate" (p. 172). Politics is seen as a problem, a problem that needs to be solved. Nevertheless, Clegg (1989) argued that politics is a pervading feature of all organisational systems, rather than a particular system which should be contained.¹¹

However, these common traits of Lukes' three dimensions were contested on several grounds. Lukes' corrections, in his 2005 work, of some of his previous

¹⁰ The title of the paper Cendon and Jarvenpaa (2001) referenced to exemplify this claim contains all three traits: "*Power over users: its exercise by systems professionals*" (Markus and Bjorn-Andersen, 1987, emphases added). However, and somewhat paradoxically, almost the same can be said about the title of their own paper: "The development and *exercise* of power by leaders of support units (...)" (emphases added).

¹¹ In a critical perspective, Clegg *et al.* (2006) argued that the neglect of the study about power, as discussed at the start of this chapter, is actually a result intended by those actors who have the power, so that (in line with Lukes' third dimension) the other, non-powerful actors do not become aware of it – and hence do not even consider changing the extant situation.

positions, are the starting point for the next section, where alternative views are considered.

3.2 ALTERNATIVE CONCEPTIONS OF POWER: CAPACITY-BASED, CAUSED, POSITIVE AND DISPERSED

Lukes (2005, p. 64) acknowledged that his previous conception of power (in Lukes, 1974) was “a very partial and one-sided account”, and offered three new perspectives – which are presented and further developed through the contributions of other authors.

3.2.1 ALTERNATIVE VIEW #1: POWER AS A CAPACITY – A DETERMINISTIC SENSE OF ‘POWER TO’

The first limitation Lukes (2005, p. 109) acknowledged was that in Lukes (1974), “following others in the ‘power debate’”, he had committed the “exercise fallacy” – i.e., requiring that power only exists in so far as it is *exercised*. For pluralists, this meant the requirement that power had to actually cause an observable sequence of events. For elitists, this meant the requirement of causing ‘mobilisation of bias’ and ‘non-decision making’ situations. For Lukes (1974), this meant the requirement of causing the actual shaping and control of the minds of the dominated classes.

On the contrary, Lukes (2005, p. 109) came to recognise that power identifies “an ability or capacity, which may or may not even be exercised”. Etymological analyses of the term ‘power’ are useful. Isaac (1987, p. 21) noted that “‘Power’ derives from the Latin *potere*, meaning ‘to be able’. It is generally used to denote a property, ability, or capacity to effect things”. Drawing from the French (hence Latin) roots of the

English term ‘power’, Clegg (1975) added that a potential source for confusion derives from ‘power’ presently encompassing both meanings at stake: ‘capacity’ (associated with ‘*puissance*’) and ‘exercise of that capacity’ (associated with ‘*pouvoir*’).

Therefore, Lukes (2005) revised his previous position and accepted the notion of ‘power *to*’ (achieve some effects), based on the actor’s *capacity*, even if such effects are not actualised should the power never be exercised (Clegg, 1989 and Ribeiro, 2003). Isaac (1987), who harshly criticised Lukes’ initial position, went further, claiming that the conception of “‘power over’ (...) is parasitic upon a ‘power to’ conception”, meaning that “the power one agent exercises over another agent in interaction is parasitic upon the powers to act which the agents possess” (p. 5, 15).

The perspective of ‘power as a capacity’ focuses on the *essence* of power in itself, in a realist perspective - rather than its manifestations, the effects. It is this fundamental and groundbreaking difference that justifies considering that ‘power as a capacity’ is the widest sense of the notion of ‘power *to*’ (this section proposes other senses of the ‘power to’ notion). This realist approach, originated in the natural sciences and then taken to the social sciences, is now explored.

A realist conception of the natural sciences (Harré and Madden, 1975) argues that an entity has some intrinsic characteristics which explain the phenomenon. E.g., “to say that conductivity is a power of copper is to claim that copper possesses an enduring capacity to conduct electricity that is intrinsic in its nature, in this case its atomic structure” (Isaac, 1987, p. 21) (see Clegg, 1989 and Ribeiro, 2003 for similar examples). In other words, within this realist conception of the natural sciences, universal laws

describe what power effects *will* occur, according to the intrinsic nature or constitutions of the elements, under the appropriate standing conditions.

A realist view was also taken to the social sciences in general (e.g., Archer 1995 and 1998b), to specific fields, such as economics (e.g., Foss, 1994), marketing (e.g., Easton, 2002), information systems (e.g., Volkoff *et al.*, 2007) and to the debates about power (Benton, 1981; Bhaskar, 1975; Isaac, 1987). It should be noted that Harré and Madden's definition of power already intended to be applied *beyond* natural sciences, and to man in particular: “‘X has the power to A’ means ‘X will or *can* do A, in the appropriate conditions, in virtue of its intrinsic nature’ (Harré and Madden, 1975, p. 86, emphasis added). In this definition, “the can-option is reserved for ascribing powers to people” and “this reservation is a tip of the hat to freedom of the will” – but *only* as what concerns the *powerful* actor, as noted by Woller (1982, p. 627).

However, the determinism of the realist view, considering that ‘causal powers’ ensure a predetermined outcome given certain standing conditions, has been criticised both in the natural sciences and especially in its application to the social sciences. These criticisms are addressed in the next subsection, which proposes a non-deterministic, more contingent view of the notion of ‘power to’.

A brief terminological remark is now proposed. Key authors on power reviewed in this thesis (Clegg, 1989; Lukes, 2005; Ribeiro, 2003) considered that viewing power as a *capacity* means that power is a ‘*dispositional* concept’. However, as discussed in Chapter 2 when conceptualising routines and rules, ‘disposition’ often refers to psychological aspects, such as propensities to act. Also, describing power as ‘dispositional’ may suggest that the actor has “the power to deal with something as one

pleases” (Concise Oxford Dictionary, emphasis added), i.e., it may suggest that the actor has to have some *intentionality*. However, power can also include situations generating ‘unintended consequences’, as the above authors agreed (see also Bachrach and Baratz, 1962, 1970 and 1975). This is particularly relevant in ANT (section 3.4), since ANT does not require intentionality to define agency (such characteristic is particularly clear as regards non-human actors, but it is not limited to them). Therefore, equating the notion of ‘power *to*’ with power as a ‘dispositional’ concept risks being too restrictive, since it may place an undue focus on mental aspects and it may suggest requiring intentionality. Therefore, this thesis adopts the concept of ‘power as a *capacity*’ to express the ‘power *to*’ notion.¹²

3.2.2 ALTERNATIVE VIEW #2: POWER AS A *CONTINGENT CAPACITY* – A *NON-DETERMINISTIC SENSE OF ‘POWER TO’*

This subsection explores critiques to the determinism underlying the realist notion of ‘power as a *capacity*’ and proposes a non-deterministic sense of ‘power *to*’: power as a *contingent capacity*.

Harré and Madden’s realist conception about ‘causal powers’ sparked controversy both *within* and *beyond* natural sciences. As regards natural sciences, Woller (1982, p. 616) claimed that their realist conception “runs counter to the humean-positivistic tradition, which denies the existence of any distinctively ‘natural’ or causal necessity” (see other criticisms from McCullagh, 1998 and Wilson, 1985). The application of realism *beyond* natural sciences was subjected to even more criticism. In

¹² In addition, section 3.5, discussing Clegg’s framework of circuits of power, adopts the term ‘dispositional’ to refer to the dispositions (i.e., inclinations and orientations to act) of social actors to act in certain ways, as a consequence of prevailing rules, as discussed in chapter 2.

fact, there are crucial differences as regards natural sciences, where realism was originated. The implicit determinism was a key objection. Although, as noted, Harré and Madden's tried to accommodate free will by recognising that "X (...) *can* do" whatever is in his power (or, alternatively, X can decide *not* to do it), this was only a partial response. In fact, they were only dealing with one side of the question: the powerful side. The other side, which was missing, are those who are subject to that power.

Ribeiro (2003) includes the consideration of the behaviour of the 'other' side(s) of the power relation, of those who are subject to power. In the social world, "[t]hese powers are not covered by [universal, physical] laws, but rather are fixed in and through *rules* that are enacted by individuals who participate in social relations. But individuals, unlike inert materials, may always choose to respond otherwise – that is, by reference to different sets of rules" (Ribeiro, 2003, p. 63, emphasis in the original), as suggested in chapter 2 and further developed in section 3.5.

More generally, Hindess (1982) denied that, in the social world, power has "*capacity* to secure. (...) [*C*]apacity vanishes on closer inspection" (pp. 502, 504, emphases in the original). "Actors may have intentions concerning outcomes, and may mobilize resources or engage in the management of meaning with the idea of achieving them, but pulling these 'strings' of power does not necessarily produce these desired outcomes" (Hardy and Leiba-O'Sullivan, 1998, p. 458). Hindess (1982) further explained: "First, the means of action of agents are dependent on conditions that are not in their hands. Second, the deployment of these means of action invariably confront obstacles, which often include the opposing practices of others. Success in overcoming these obstacles, and in fixing the appropriate standing conditions that would *a priori*

ensure attaining the desired outcomes, cannot in general be guaranteed. (...) [Therefore], outcomes are not ‘predictable and unvarying’” in a way that would allow power actually having “capacity to secure” (pp. 501-502). ANT, discussed below in section 3.4, particularly emphasises this perspective, highlighting the need to orchestrate powers and actions of others to produce outcomes.

What emerges from the previous arguments is that a more appropriate notion of ‘power *to*’ should emphasise the *limited* and *contingent* nature of the capacity of any actor’s power to *actually secure* outcomes. Such is the underlying perspective of many researchers conceptualising power as the capacity to get things done (e.g., Macintosh and Scapens, 1990). Power(s) may facilitate or contribute towards certain outcomes and effects, although within a contingent perspective. Powers operate in a context in which outcomes are typically dependent on the actions and reactions of other people and, more generally, on appropriate standing conditions, both of which typically cannot be guaranteed. As such, power should be seen as a *contingent capacity*.

Much *mainstream* literature balances between the views of power as a *contingent* capacity and power as a capacity. The view of power as a *contingent* capacity is actually reflected in the frameworks of mainstream authors, when they describe the multiple factors which may affect outcomes. However, their synthetic definitions tend to explicitly adopt the view of power as a capacity, *tout court*. E.g., Mintzberg (1983, p. 4, emphasis removed) defined power as “the capacity to effect (or affect) organizational outcomes”. Mainstream literature with a *functionalist* perspective suggests that, by adequately studying and using power, it is possible to achieve success. E.g., Pfeffer (1992, p. 8) drew on Nixon (1982, p. 5) to state that “[t]he great leader needs (...) the capacity to achieve” and argued that “[t]oday more than ever, it is

necessary to study power and to learn to use it skilfully, since we cannot otherwise hope to gain individual success in organizations or the success of the organizations themselves” (p. 8). Overall, going beyond the more attention-grabbing excerpts, mainstream literature approaches the view of power mostly as a capacity - although a difficult to secure one.

Viewing power as a capacity (deterministic or not) does not entail any judgment about its effects. Traditional approaches to power tended to depict power as negative and prohibitive (the ‘power over’ view). The next subsection explores the alternative approach of viewing power as having the capacity (deterministic or not) to achieve *positive* outcomes - i.e., in an *evaluation* of the outcomes of power.

3.2.3 ALTERNATIVE VIEW #3: POWER AS POSITIVE – THE *EVALUATIVE* SENSE OF ‘POWER TO’

Strictly speaking, the notion of ‘power to’ merely invokes the capacity (deterministic or not) to produce certain effects – whatever those effects are. However, the literature has often associated ‘power to’ with a particular alternative notion of power, one that *evaluates* that power can also be positive (rather than negative), by potentially producing positive effects (e.g., Moilanen, 2008; Ribeiro, 2003).

Lukes (2005) acknowledged that dealing only with the negative view of power was a second limitation¹³ of the first edition of his book. Lukes (1974) had dealt only “with asymmetric power – the power of some *over* others – and, moreover, with only a sub-type of this, namely, the securing of compliance to domination” (Lukes 2005, p. 64,

¹³ As analysed above, Lukes (2005) had also acknowledged the ‘exercise fallacy’ in Lukes (1974) by ignoring the notion of ‘power to’.

emphasis in the original), in a zero-sum situation. Indeed, this acknowledgement suggests that the expression ‘domination over’ should be used to express such situations, while ‘power over’ should be used as a general expression of the fact that power may affect others.

In the second edition of the book, Lukes (2005) came to concede that “power (...) may sometimes favour, or at least not disfavour, the interests of those who are subject to it” (p. 84), therefore creating a *positive, non-zero sum game*, or even a ‘win-win’ situation. Drawing from Wartenberg (1990), Lukes provided examples such as: paternalist legislation enforcing wearing seat belts; apprenticeship, teaching, parenting and therapy relations; and absolute obedience relations indispensable to coordination, as in armies or orchestra conducting. Lukes (2005) admitted that it is possible “to be powerful by satisfying and advancing others’ interests; power over others can be productive, transformative, authoritative and compatible with dignity” (Lukes, 2005, p. 109). In turn, Clegg *et al.* (2005, p. 184) argued that “Positive uses of power make things happen that wouldn’t otherwise have happened – not by stopping some things from occurring, but by bringing new things into creation, involving less force and more listening, working with, rather than against, others”.

Therefore, power may also lead to or facilitate the achievement of results which are desirable by *both* the ones with power and the ones subjected to it (as further discussed in this chapter). This favourable evaluation about the benefits resulting from power has often been associated with the ‘power to’ notion (Clegg *et al.*, 2006; Ribeiro, 2003). However, it is clear that the positive perspective is merely one of the possible

senses of ‘power to’ – what was labelled in this subsection as the ‘*evaluative* sense of ‘power to’’,¹⁴.

However, the notions of ‘power to’ and ‘power over’ may in practice overlap. As the previous subsections established, the notion of ‘power to’ views power as a capacity (deterministic or not). And although “there is no [longer an] assumption that power is necessarily negative or repressive, a ‘power over’” (Ribeiro, 2003, p. 63), it does not necessarily imply a positive outcome to *all* actors involved, either. Indeed, Clegg *et al.* (2006) pointed out that everyday situations usually encompass the two opposite notions of ‘power over’ and ‘power to’. E.g., a power exercise overthrowing tyrants may be *evaluated* as positive by the liberated people, but it is most certainly *evaluated* as negative by the former tyrants and their entourage and loyal troops (see quotation in page 133).

Therefore, the conception and evaluation of the power of each person “is dependent on the point of view taken. One person’s ‘power to’ may involve asserting ‘power over’ many other people (...) [Therefore,] the effects of power as productive [i.e., positive] or negative are strictly contingent, so for some people the effect may be positive while for others it will be negative. Power itself isn’t ‘over’ or ‘to’ in a

¹⁴ The literature offers several classifications of power-related concepts involving this negative-positive perspective. E.g., Bachrach and Baratz (1963) distinguished between the power-related concepts of influence, authority, force and manipulation, and Lukes (1974) clarified this classification by adding the concept of coercion. Clegg *et al.* (2006) proposed the following modalities of exercises of power: domination, authority, seduction, coercion and manipulation. Some of these distinctions are defined as a function of power being perceived as positive or negative. However, this discussion and associated taxonomies is not further explored here.

transcendent way; it is ‘over’ or ‘to’ depending on the specific situation and the contingent position of the agents” (Clegg *et al.*, 2006, pp. 190-1).¹⁵

Summarising this alternative view of power, power does not necessarily have to be negative, and particularly should not be equated to domination (as traditional approaches tended to assume). Power can be positive and facilitative of the achievement of interests of various parties – although in practice the two notions ‘power to’ and ‘power over’ may overlap and classifying power as positive or negative may be contingent on the specific agents’ situation.

The previous discussion about viewing power as a capacity (deterministic or not) brings the logical question of what this ‘capacity’ of the actors is about, so that they have power. What causes that power? This issue is analysed in the next subsection.

3.2.4 ALTERNATIVE VIEW #4: POWER AS A VARIABLE TO BE EXPLAINED – ‘POWER AND ITS CAUSE’

Since in traditional approaches the origin of power was located in some ‘prime mover’ (‘the sovereign’), the notion of ‘power as a cause’ prevailed. The ‘cause’ was power itself, and it was power that caused effects.

However, the focus on the *capacity* to produce certain effects (rather than on the effects themselves and on visible exercises of power) and, even more, the

¹⁵ Pfeffer (1992) initially concurred that a particular actor may perceive power to be positive or negative depending on whether the actor is exercising, or being submitted to, power. However, Pfeffer then diverged from Clegg *et al.*’s perspective by suggesting that such biased perceptions should be considered somehow primitive and erroneous and should therefore be avoided. Alternatively, in a functionalist approach, he proposed a ‘better’ perspective: “[a] more sophisticated and realistic view would see it for what it is – an important social process that is often required to get things accomplished in interdependent systems” (p. 16).

acknowledgement of a mere *contingent* capacity, challenges the notion of ‘power as cause’, of ‘power as *the* cause’. In other words, it requires abandoning the notion of power as an exogenous variable (Ribeiro, 2003). Instead, it requires adopting a view of ‘power *and* its cause’, a view of power as something whose origin has to be explained, as an endogenous variable. It implies looking ‘upstream’ of power (analysing its causes), rather than ‘downstream’ (analysing its effects). It implies explaining the *nature* of power.

Viewing power as a *contingent* capacity to produce certain results highlights, even more, the need to research what causes power. A realist perspective may be useful at this point, since the notion of a *contingent* capacity highlights that *in certain conditions* (what realists referred to as ‘appropriate standing conditions’) the outcomes *will* be produced; however, failing such conditions, those outcomes may not eventuate. The issue would then become to determine the necessary and / or sufficient causes for a certain actor to have the power to actually secure outcomes.

It should be clarified that considering power as a *contingent* capacity intends to stress that this capacity is *not absolute*. It highlights the need to identify factors acting as causes of power of agents, and whose presence or absence influences their capacity to secure outcomes. In addition, the view about the contingency of power does *not* reflect the adoption of a research approach known as ‘*contingency theory*’ (e.g., Chenhall, 2003; Oliveira *et al.*, 2009; Otley, 1980 and 1995; Ryan *et al.*, 2002). Contingency theory, when applied to organisations, tries to identify factors which explain certain organisational characteristics, and then tries to make statistical generalisations, using quantitative methodologies. Contingency theory assumptions, objectives and methodologies are not adequate to many of the issues tackled in this

thesis – e.g., the less visible aspects in the second and third dimensions of power, and the unpredictability and indeterminacy implicit in Clegg’s framework, adopted at the core of this thesis.

As a summary, this subsection has developed the notion of ‘power as a capacity’, by inquiring what factors can be regarded as causing power (‘power *and* its cause’, rather than considering ‘power *as* cause’), and hence causing the (typically non-deterministic capacity) of some actors to produce outcomes. But, *who are those various actors?* A powerful *A* and a powerless *B*? A plurality of powerful *As* and powerless *Bs*? Can these *As* and *Bs* be located and identified? This is discussion developed in the next subsection.

3.2.5 ALTERNATIVE VIEW #5: DISPERSED AND RELATIONAL POWER

Traditional views on power tend to consider that power can be identified in particular locations, in particular agents, in *As* which have power (vs. *Bs* who do not). Lukes (2005) made only some way in detaching himself from the traditional view on power as something located in a given actor or actors. In his third rectification to his previous work, Lukes (2005, p. 64) only went so far as to admit that in Lukes (1974) he had only treated “binary relations between actors who are assumed to have unitary interests”, and that such simplifying assumptions should be relaxed. The corresponding corrective should allow for considering multiple actors with multiple interests, some in conflict and some not.

However, even though Lukes focused on effects of a broad system, rather than interventions of particular agents (Clegg, 1989), he still viewed power in one single,

particular location: in society's ruling class. A similar criticism has been raised to related streams of research. E.g., Whittington (1992, p. 702) noted that even when Willmott (1986b) "acknowledges the multiple social identities of organizational actors, and recognises the scope of managerial interpretation", Willmott's "conception of the firm is still too monolithic", dominated by "capitalist principles" and an emphasis on class struggles (a criticism extended to other Willmott's works and to the Bravermanian and labour process perspective). Therefore, even though acknowledging multiple actors, the location of power is still considered to be determinable - at a collective level. The issue about the *location* of power was still not fundamentally challenged.

Alternatively, Hayward (1998, pp. 1-2) suggestively argued "[a]gainst the prevailing conceptualization of power as a social phenomenon that necessarily wears a 'face'", the face of *As* and *Bs*, of powerful and powerless agents. Developing this alternative perspective, Ribeiro (2003, p. 64) endorsed the view that power could be seen as a "capacity for collective action", conferred to a given actor "within a collective capable of acting in concert". Social powers "are not *his own* but [are] rather *relationally* attributed or available to him" (emphases in the original), and which the actor has to continuously seek and retain within the surrounding network.

This new perspective reinforces the notion, already introduced in subsection 3.2.2 (p. 106), that any given, or desired, 'standing conditions' may not be (and generally are not) under the full control of any agent. Therefore, any agent has to continuously struggle to promote suitable 'standing positions', managing the *relations* which favour the creation and sustainability of his social powers within the network.

This section introduced a shift in the conceptualisation of the entities that researchers should consider in order to investigate power. The focus should turn away from individual *As* and *Bs* (no matter how many these *As* and *Bs* might be) and the power they might (individually) possess. Alternatively, the focus should be on the *collective*. In particular, the focus should be on the relations established within this collective, the powers of this collective and the powers *relationally* attributed or available to the various actors. This focus on the collective and on relations highlights the non-determinism of any capacity that might be arguably attributed to any actor. This important ontological shift is further developed over the next two sections, as Foucault's and Actor-Network Theory perspectives are explored.

3.2.6 CONCLUDING THOUGHTS ABOUT CONCEPTIONS OF POWER – AND REFLECTING BACK ON OIE

This section discussed conceptions of power which are alternatives to the conventional conceptions presented in the previous section. Instead of merely focusing on the effects of power, the focus can be placed on power as a *capacity*, as capable of producing effects – although in the social world this capacity is likely to be *contingent* on a plurality of factors, many of which may not be under the control of any particular actor. Instead of viewing power as solely negative and prohibitive, it was suggested that power can also be *positive* and creative, including for those who are submitted to power. In addition, typically each actor may *evaluate* power as positive or negative *depending on the relative position* of that actor within the power relation. Instead of considering power as a prime mover which causes effects, the need to research *what causes* power was highlighted. Finally, instead of considering a simple framework of perfectly identified actors, of *As* and *Bs*, who exercise power or have power exercised on them, it

was suggested that a more dispersed and relational notion of power is required to deal with the complexity, interdependency and unpredictability of social relations.

The notions of power analysed so far are pertinent to an Old-Institutional Economics approach (see chapter 2). The emphasis of much OIE literature on the constraining power of structures (in particular, institutions) over individuals corresponds to a structural *capacity* (though a typically non-deterministic capacity) of those structures to produce effects, mostly in a power *over* perspective. However, OIE theorists also argue that institutions may be decisive towards organisational accomplishments (through, e.g., organisational coordination and *truce* - Nelson and Winter, 1982; Scapens, 1994) which, in turn, may benefit the individual. Therefore, the assumed lack of (or limited) power of individuals (due to the lack of, or limited, agency) does not necessarily entail negative and detrimental consequences over them. Here, the notion of power at stake is ‘power to’ and, indeed, ‘power as positive’. Finally, the unsettled OIE issue about whether institutions can be manipulated by particular actors or whether accretion is a more accurate depiction of institutional formation (Seal and Herbert, 2005, drawing on Czarniawska, 1997) impinges on various discussions in this chapter. E.g., this issue concerns whether there are ‘ruling agents’ (one, a few or multiple; more identifiable or less identifiable) actively attempting to shape institutions; on whether institutions are influenced by a ‘ruler’ (or rulers) possessing particular (i.e., absolute) powers or by actors developing their relational position in each particular instance, struggling to orchestrate collective power; and on the alternative of there being no rulers behind the structures (in line with the notion of ‘accretion’).

The previous discussion on power – and its contributions to OIE – can be enriched by exploring the ideas of French philosopher Michel Foucault. Foucault has

attracted a great deal of attention across many areas, including power. The following section 3.3 explores Foucault's ideas about power. Then, section 3.4 introduces key related concepts from Actor-Network Theory and section 3.5 presents Clegg's framework, which synthesises many ideas on structures, agency and power previously discussed.

3.3 POWER ACCORDING TO FOUCAULT

Michel Foucault (e.g., 1975/1977, 1988) is a key author associated with the broad postmodern and post-structuralism movement. Burchell *et al.* (1991) labelled Michael Foucault's enormous influence in contemporary social sciences and, specifically, on power, as 'the Foucault effect' (see also Clegg *et al.*, 2006). However, the use of metaphors and a rhetorical style, by Foucault and many of his followers, create difficulties as regards how literally the texts should be interpreted (a comment equally applicable to much post-structuralism), as even some of his followers have acknowledged (e.g., Clegg, 1989). The ensuing discussion tries to avoid reproducing such problems.

This section first sketches Foucault's main ideas about power. The following subsections analyse how Foucault's ideas fit in the various conceptions of power presented so far in this chapter. The section concludes by establishing some intersections and distinctions between OIE and Foucauldian perspectives.

3.3.1 AN OVERVIEW ON FOUCAULT'S IDEAS ON POWER

Foucault emphasised the concept of *disciplinary power* and traced its historical origins. Specifically, he suggested that the institution of the monarchy, the notion of the

power of a sovereign, influenced the way authors like Hobbes and Dahl conceived power. In these traditional approaches, the power was located in the sovereign. Moreover, since sovereigns typically only exercised authority on certain occasions (or episodes)¹⁶, an *episodic* view corresponded to the conceptualisation that power was “mostly absent except when exercised, (...) only intermittently in discrete episodes” (Clegg 1989, p. 156).

However, Foucault suggested that such intermittent, mechanical and located view of power was no longer adequate to today’s world. Alternatively, he also conceived a shift of power from episodic events and exercises of power between As and Bs, to an *all-pervasive capillary* form of power, continuously affecting all individuals, at all times.

Foucault also defended this shift - from an episodic to a continuous form of power - on an *economic* basis, as Legrand (2005) noted. In particular, Foucault (1975/1977) analysed the cost-benefit relation of various forms of power, and he concluded that an *episodic* exercise of power had a *high cost*, when compared to a more continuous type of power. Through Foucault’s historical analyses, Legrand argued that the episodic exercise of the sovereign power until the eighteenth century relied on excess usage of the means of punishment, since the punishment was also a ritual to re-establish power, including through the spectacle of the punishment, of its excess. “Therefore, such system has, as a very condition to function, to be un-economical” (Legrand, 2005¹⁷). Interestingly, Foucault argued that, during the eighteenth century,

¹⁶ Within feudal relations, the exercise of such sovereign power was restricted to the periodical (i.e., episodic) appropriation by the feudal monarch from the producer of its product (Clegg, 1989, based on Bauman’s (1982) historical account).

¹⁷ Translated from the French. Since the source is a recording from an oral presentation by Legrand, no page numbering can be indicated.

“[t]he criticism of the reformers was directed not so much at the weakness or cruelty of those in authority, as at a bad economy of power” (Foucault 1975/1977, p. 79). “If we intervene in a too discontinuous way, we risk allowing the development, in the meantime, of phenomena of resistance and disobedience, with a high political cost” (Legrand, 2005). So, there was, at the same time, too much power (in the way it was exercised by the several agents, in the instances when it was indeed exercised) and “not enough power, because such power was discontinuous, erratic, concentrated on certain privileged points, instead of being extensive” (Legrand, 2005).

Therefore, the objective of the reformers became to “set up a new ‘economy’ of the power to punish, to assure its better distribution, so that it should be neither too concentrated at certain privileged points, nor too divided between opposing authorities; so that it should be distributed in homogeneous circuits capable of operating everywhere, in a continuous way, down to the finest grain of the social body. (...) [M]ore regular, effective, more constant and more detailed in its effects; in short, (...) increase its effects while diminishing its economic costs (...) and its political costs” (Foucault 1975/1977, p. 80).

But without relying on a sovereign from whom power directly emanated and in whose name that power was exercised in (very) visible episodes, how could this all-pervasive, capillary, continuous power be achieved? In other words, *without the traditional source of power* (the sovereign), *what could cause power?*

To support a pervasive disciplinary power, in space and time, Foucault proposed the adoption of *technologies of administration, surveillance and assessment*. One particularly illustrative and classical example was Bentham’s (1995/1843) ‘Panopticon’

(see Foucault 1975/1977, pp. 195-228). This “ideal form” (Foucault 1975/1977, p. 205) of a prison (designed by Bentham, but never actually built) would consist of a central watch-tower, around which cells would be distributed. Therefore, from the tower it would be possible to observe (‘gaze’) all prisoners; however, because light was only shed on the prisoners’ cells, but not on the central observation point, prisoners would not be able to know if they were actually being watched, at any given time. Hence, even if the observer were not there at all (let alone looking at a particular prisoner), the prisoner’s knowledge of the possibility of being monitored at any time and the impossibility of avoiding it would promote each prisoner to permanently self-survey and self-discipline himself, according to the established norms. It was the *possibility* of the ‘gaze’ (or, more precisely, the prisoner’s *knowledge* of the *possibility* of being ‘gazed’), rather than its actual exercise, that created disciplinary power. Hence Bentham’s principle that “power should be visible” (the inmate would constantly see the tower from where he may be observed) “and unverifiable” (Foucault, 1975/1977, p. 201).

Therefore, Foucault considered that power has to be supported, or caused, by particular devices (the technologies of administration, surveillance and assessment), and that the production of effects is not dependent on the actual and visible exercise of power. Updating Foucault’s example to *current-day situations*, CCTV (closed-circuit television) systems, personnel’s remote time control systems, or information systems registering every action and transaction within a company, are examples of systems whose mere existence creates the awareness that individuals’ actions can be monitored and controlled at a distance – even if they, or most of them, are not permanently or even

never actually monitored or controlled. As Foucault described, “the perfection of power should tend to render its actual exercise unnecessary” (Foucault 1975/1977, p. 201).

Indeed, Foucault went beyond the scenario of Boss *et al.*’s (2009) conclusion, in an IT and managerial context, that “if individuals *believe* that management *watches*, they will comply” (p. 151, emphases added). While both highlighted the importance of the subjects’ perceptions, Foucault stressed that the perception of the *mere possibility* of being monitored (rather than the perception that management *actually* watches, as in Boss *et al.*’s, 2009 conclusion) produces self-disciplinary effects.

Summarising this introduction, Foucault emphasised the goal of an economy of continuity and permanence of power (rather than episodic excess), based on technological devices. To “reduce its economic and politic cost by increasing its effectiveness and by multiplying its circuits. In short, constitute a new economy and a new technology of the power to punish” (Foucault, 1975/1977, p. 89). Furthermore, these power mechanisms should be designed in a way to *dispense actual punishment, coercion, action and the sheer actual presence* of any controller. Yet, they should operate in a capillary way, unconstrained and across contexts of time and space, allowing potentially permanent surveillance and, more decisively, inducing permanent self-surveillance and self-discipline. The Panopticon imagery corresponds to Foucault’s most ‘radical’ and extreme position as regards the total reach and unavoidability of power (cf. the only partial visibility and control of the ‘oligopticon’ proposed by Latour, 2005, as explored by Hyvönen *et al.*, 2008), which is debated and revised below in subsection 3.3.7 . Before that, the next subsections analyse how Foucault’s ideas fit in the various conceptions of power presented: power *and* its cause; relational power; power as a (contingent) capacity; and power as positive.

3.3.2 MECHANISMS OF POWER – POWER AND ITS CAUSE

The previous overview on Foucault's ideas highlighted that identifying the source(s) of power is not straightforward. Foucault clearly rejected the simple identification of the origin of power to a sovereign, or to some prime mover. Viewing power *as* cause was inadequate to Foucault. On the contrary, the sources, the mechanisms allowing a certain actor to have power, need to be identified. In other words, Foucault was interested in researching power *and its cause*. In particular, these mechanisms of power can continuously and pervasively operate upon individuals and may create individuals' self-discipline, potentially dispensing with the need for an *A* to control and exercise power over a *B*. This reference – and rejection – of the traditional setting of an *A* and a *B* raises the issue of the ontological status that Foucault attributed to *actors* – or, using Foucault's privileged terminology, *subjects*. This is explored in the next subsection.

3.3.3 RELATIONAL POWER AND RELATIONAL IDENTITIES AND SUBJECTS AS A PRODUCT OF POWER

Rather than conceiving identifiable, locatable *As* and *Bs* and their power, Foucault was interested on dispersed *masses of identities*. In addition, for Foucault, “identity is never regarded as being given by nature; individuality is never seen as being fixed. (...) Identity is seen as contingent, provisional, achieved, not given. Identity is seen as always in process, (...), not absolute but (...) always relational: one can only ever (...) be something in relation to some other thing. Identity is always defined in terms of difference, rather than as something intrinsic to a particular person or category” (Clegg 1989, p. 151). As Hardy and Leiba-O'Sullivan (1998) described, “the individual is a socially constituted, socially recognized, category of analysis who has multiple

fragmented identities, identities which are salient only insofar as they are socially recognized (...). Thus the subject is not a ‘given’” (p. 459)

In addition, the dominating side is also not as clearly identified as the ‘sovereign’ of the previous approaches. Foucault’s defended “a machine for creating and sustaining a power relation *independent* of the person who exercises it” (Foucault, 1975/1977, p. 201). Foucault does not consider an A (or As) acting as a sovereign whose will is enacted through these mechanisms. Foucault eschewed that traditional setting of As and Bs. Foucault’s focus is on the *field of relations* established among the actors and the forces which emerge within such field of relations. Retrieving a notion introduced in 3.2.5, the power of an actor is *relationally* attributed or made available to him, based on the position he occupies and the alliances he holds at each moment in an ever shifting network. As such, points of resistance across the network may emerge, breaking alliances, regrouping actors and reshaping strategies (Clegg, 1989).

The idea of power being determined by ever shifting relations within an ever shifting network is, clearly, on the antipode of the idea of power emanating from one single source, either in the view of the classic sovereign, or Lukes’ (1974) ‘third dimension’, based on the power of society ‘ruling class’. No wonder that, in a typically metaphorical and expressive way, Foucault asserted the widely-quoted call for the “need to cut off the King’s head” (Foucault, 1980, p. 121).

In addition, Foucault considered that power had a more fundamental role than merely dominating, or subjugating, an actor (or, in Foucault’s terminology, a subject). For Foucault, power *produces* the subject. Recalling previous notions of power, the episodic power of the sovereign only subjected, i.e., dominated the subject. Here,

“[t]he subject is socially *produced* by the system of power which surrounds it” (Hardy and Leiba-O’Sullivan, 1988, p. 459, emphasis added). This production of the subject operates through a “process of ‘correction and normalisation’. Subjects are ‘gradually, progressively, really and materially constituted through a multiplicity of organisms, forces, energies, materials, desires, thoughts etc’, a process or series of processes which add up to ‘on-going subjugation’” (Wickham, 1983, p. 475, quoting Foucault, 1980, p. 97).

Therefore, in Foucault’s view, the ubiquitous presence of “power (everywhere and every when) as field of force relations” (Ribeiro, 2003, p. 67) becomes *constitutive* of the subjects. In other words, the subject is ‘constituted’ through subjection to power; power ‘subjectifies’ the subjects, turning them into docile bodies.

So, in Foucault’s writings representing his vision throughout most of his life, no one can escape such power relations, and there is no place outside power. And this view is related to *one of Foucault’s conceptions of power as ‘productive’*: power is ‘productive’ because it constitutes, ‘produces’ the subject¹⁸.

Another fundamental question requires a clarification: what entities can be considered as actors, or agents? What entities can be involved in power relations, can be considered to have power or have power to be exerted upon them? As patent in the discussion so far, Foucault considered that not only human beings can be agents, and in particular powerful agents. The Panopticon device, a CCTV camera, a personnel’s remote time control system, an all encompassing information system recording all

¹⁸ At the end of this section, a second conception of the productive nature of power is discussed, also in line with Foucault’s approach.

transactions, have the potential to recurrently obtain outcomes by their mere existence, and could be described as powerful agents. Only they are not human agents: they are *non-human* agents (a distinctive notion of Actor-Network Theory, discussed in the next section).

The argument that power actually constitutes, produces the subject suggests a wide and deep reach of power, suggesting that power may actually secure effects and outcomes. This suggestion is discussed over the next subsections. The next subsection analyses a proposal to combine this notion of an overwhelming power with the various views of power discussed so far – based on a ‘Fourth dimension’ of power (Hardy and Leiba-O’Sullivan, 1998), adding to Lukes’ (1974) three dimensions.

3.3.4 NO ESCAPE FROM POWER: A FOURTH DIMENSION OF POWER?

In a Foucauldian perspective, how effective can power be? What is the balance between, on one hand, the weakness caused by an instable terrain and the lack of a fixed source of sovereign power, and, on the other hand, the strength of capillary mechanisms of surveillance? Bauman (1982, p. 41), cited in Clegg (1989, p. 168), provided an answer drawing from an historical analysis: “No one of these many powers [of the many broad groups subjecting the individual(s)] is now total, as that of the absolute monarch claimed to be. But together they reach a kind of totality which no power dreamed of reaching before”.

Hardy and Leiba-O’Sullivan (1998) argued that, more than operating through mobilising scarce resources, controlling decision-making or managing the meanings, power can be seen as “embedded in the very fabric of the *system*; it constrains how we

see, what we see, and how we think, in ways that limit our capacity for resistance” (p. 460). And in line with views already expressed, they argued that “while some actors may derive certain advantages from the power relations embedded in the system, they can neither control them nor escape them.” (p. 461).

In other words, Hardy and Leiba-O’Sullivan (1998) drew on the Foucauldian insight that there is no escape to power relations - including all actors alike, regardless of the relative power that each may relationally possess, regardless of being (relationally) ‘more’ or ‘less’ powerful. As such, they suggested that the all-pervasive, capillary power, encompassing all actors alike, could be described as a ‘fourth dimension’, adding to the three dimensions proposed by Lukes (1974). This fourth dimension represented ‘systemic power’, which shaped the subjects at the deepest possible level (see figure 3.2, a schematic representation by Clegg *et al.*, 2006).¹⁹

¹⁹ Clegg *et al.* (pp. 218-219) were critical of the concept of a fourth dimension, encompassing the other three dimensions proposed by Lukes. They argued that “Foucault does not come from the essentially Hobbesian conception of causal power that shapes Lukes’ account” and that there were “contradictory political, ontological, epistemological and moral presuppositions” across the various dimensions. They therefore concluded that blending and synthesising the four views on power “may result in a mixture that is somewhat indiscriminate”. However, they also conceded that other authors (e.g., Digesser, 1992 and Hardy, 1996) had also pursued the same objective of synthesising contradictory views. As a whole, the graphic representation is not eschewed here, as it is believed that the advantages of an intuitive and encompassing visualisation outweigh eventual issues deriving from inconsistencies across the four dimensions.

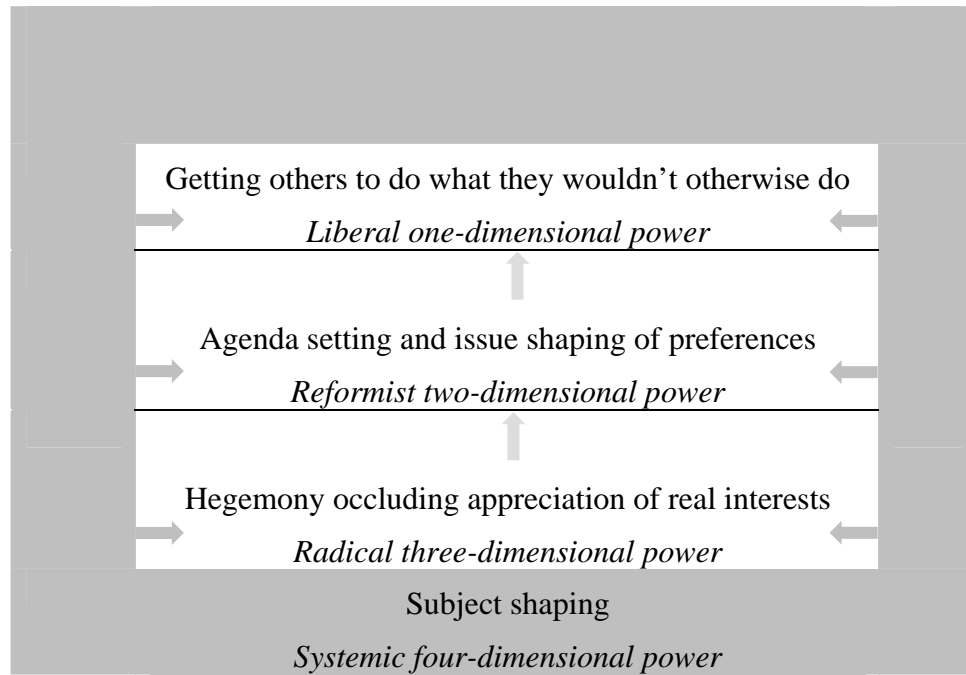


Figure 3.2: The four dimensions of power, according to Hardy and Leiba-O'Sullivan (1998) (Source: Clegg *et al.*, 2006, p. 219)

This fourth dimension represents superstructuralism in an extreme form, constraining indeed all actors in a way that resistance and the possibility to escape from those very constraints would indeed be very limited, or inexistent. As Lukes (2005, p. 88) argued, this Foucauldian conception of power would indeed represent an “Ultra-radical view” – presumably, even “more radical” than Lukes’ own ‘Radical view’. In short, as already stated, there would be no place outside power, and no escape from power.²⁰

The Foucauldian description of the subjection of the individual, or the ‘production of the subject’, as well as the description of how all actors are constrained by power relations and that there is no escape from power, raises two issues. First, this description may suggest that power may have a *total* capacity to secure outcomes. As

²⁰ Lukes (2005) argued, however, that Foucault changed his mind, closer to his death, and that his ‘final’ position was not truly radical. This discussion is developed later in this section.

argued in the previous section, this is questionable in the social sciences, and the next subsection (3.3.5) focuses on Foucault's views about power as a capacity. Second, this description of subjugating the subjects risks presenting power as something negative – an idea that Foucault clearly opposed, by emphasising that power can be positive. This controversial issue is the focus of the ensuing subsection 3.3.6..

3.3.5 REJECTING ‘POWER AS A CAPACITY’ – FOUCAULT’S FOCUS ON THE LOCAL, ON THE RELATIONAL AND ON CONTINGENT EFFECTS

The proposed ‘Fourth dimension’ of power would have an extensive and overwhelming influence. It would encompass all actors, and not even requiring either an observer / controller or visible exercises to produce effects, since subjects would self-monitor and self-discipline. This might suggest that Foucault mainly considered power as a capacity – and indeed with a high level of determinacy and capacity to secure. However, such suggestion would not be correct.

As analysed in the previous section, the notion of ‘power as a *capacity*’ was endorsed by the realist perspective, emphasising that, in the *appropriate standing conditions*, certain characteristics of an actor or an object have the capacity to secure outcomes, regardless of whether they are exercised or not. These characteristics are ‘causal powers’, which under those appropriate standard conditions cause certain effects. However, “Foucault teaches us that, rather than being a resource that can be held or exercised – a capacity inanimate but potential – power is inseparable from its effects. (...) The focus for analysis is (...) the mundane practices that shape everyday life (...). [T]echniques of power [are only so] in so far as they induce appropriate forms of conduct. Hence, power is only visible in its effects” (Clegg *et al.*, 2006, pp. 230-231).

The combination of this apparent certainty of the capacity of power to produce and secure certain outcomes, on one side, with the consideration that power is inseparable from its effects, on the other side, may strike as a *paradox*. However, Foucault did not return to the classical focus on effects as the way to conclude for the existence of power. The mechanical metaphors about the effects caused by powers of some prime movers are, indeed, totally eschewed by Foucault.

As a *first step* towards explaining this apparent *paradox*, a clarification is needed. The view of power as a capacity is opposed to a view of power based on its exercise – an exercise which, traditionally, has been associated with *episodes* (in particular, visible episodes) of exercise of power. As discussed above, what Foucault criticised was the *episodic* exercise of power, much in line with the mechanical metaphors about the effects caused by powers of some prime movers. Instead, Foucault proposed a *continuous and capillary* type of power. And this continuous power would indeed be exercised – in fact, *permanently exercised* (although perhaps dispensing specific actions, or even a controlling actor). Therefore, in a nutshell, Foucault endorses the focus on exercises of power (in particular, in a continuous, rather than only episodic, way) and their effects. This clarification that Foucault focuses exercises of power is the first step towards explaining the suggested paradox.

The second, and decisive, step to solve this apparent paradox lies in *Foucault's local and relational focus*, on “how power is constituted *locally* in *specific* organization settings” (Clegg *et al.*, 2006, p. 231, emphasis added), amid *interrelated* strategies of actors whose very identities are *relationally* defined (Hardy and Leiba-O’Sullivan, 1998).

These local arenas are fields of force, constituted by actors mutually interrelated and dependent; indeed, the very identities of these actors are relationally defined. In these fields of force, those multiple actors attempt to deploy their strategies involving the other actors, possibly at the same time that the other actors are doing the same, leading to contingent, highly unstable outcomes. Actors may find it impossible to secure the appropriate standing conditions which would benefit their strategies. This scenario “does not rely on a model of possession or access to resources with which to leverage others. (...) [W]e are moving towards an immanent view of power, one in which, as Allen says, ‘Power does not show itself because it is implicated in all that we are and all that we inhabit’ (2003: 65). The immanent idea of power is not dependent on an analytical claim to omnipotence” (Clegg *et al.*, 2006, p. 232). Resistance by actors is expected and may be successful, and the notion of power as having capacity to secure outcomes becomes inadequate. “To say that power is constitutive does not mean that it should be seen as constitutive of nearly anything and everything, as being ubiquitous” (Clegg *et al.*, 2006, p. 261).

Additionally, institutional and structuralist authors recalled the interconnectedness of alternative institutional arrangements and the “participation of actors within a diversity of organizations” (Whittington, 1992, p. 695, drawing on Giddens, 1985; Seo and Creed, 2002). The concept of totality (Benson, 1977; Seo and Creed, 2002) is at stake, and it is further discussed in section 8.2. Therefore, in an institutional perspective, such diversified exposure of actors “precludes any total Foucauldian disciplinary power” (Whittington, 1992, p. 695).

Therefore, it is possible to justify the combination of Foucault’s focus on the sources of power (power *and its cause*, which the previous section had related with the

realist notion of capacity) and Foucault's rejection of power as a capacity and his proposal of the link between power and its effects. The combination is justified by the indeterminacy associated with Foucault's view of multiple, relationally defined actors, whose powers are also only relationally attributed to them, who develop their strategies in specific, local settings and drawing in a wide variety of personal experiences, resulting in largely unpredictable outcomes.

Summarising this subsection, Foucault's focus was on *local* arenas, on the multiple practices of the multiple, relationally defined actors. Because all actors are involved in power relations, at all times, no individual has the power to 'pull all the strings' in order to secure outcomes (Hardy and Leiba-O'Sullivan, 1998). Although power is immanent and omnipresent, no individual power is omnipotent. Hence, the rejection of power as a *universal capacity*, in a transcendent way. Hence, the focus on local practices, in specific settings, by *relationally* defined actors. Hence, the focus on the contingent, mostly unpredictable effects resulting from the confluence of those *related*, and potentially conflicting, practices. In a world so strongly characterised by contingent relations, it makes little sense to consider power as a capacity, and certainly not as an absolute, universal capacity.

As mentioned above, another issue remains to be tackled. The previous section argued that power can also be considered as positive, rather than negative. Therefore, the next subsection discusses the various meanings that 'power as positive' may have, in Foucault's thought.

3.3.6 HOW POSITIVE IS ‘PRODUCTIVE’ POWER? PRODUCING OUTCOMES AND PRODUCING SUBJECTS

‘Positive’ power was discussed in the context of the evaluative sense of ‘power of’, in subsection 3.2.3. This subsection highlights that power can be positive in two senses: a more ‘mainstream’ sense of producing outcomes and a distinctively Foucauldian sense of ‘producing subjects’. In a *mainstream* perspective, power can be ‘productive’ along the more common language sense of obtaining, or ‘*producing desired outcomes*’. E.g., Pfeffer (1992), in a functionalist approach, highlighted the role of power as “an important social process that is often required to get things accomplished in interdependent systems” (p. 16). Clegg *et al.* (2006) argued that power may be creative, empowering and facilitate the achievement of collectively desired objectives, and that “it is not necessarily constraining, negative or antagonistic” (p. 2). They exemplified the “positive, wonderful things [that] may be achieved with power: tyrannies defeated, democracies created²¹, relationships forged, and freedoms established” (p. 2), and how the Live8 Make Poverty History events had the power to positively contribute to improve the conditions in Africa. As Bentham (1995-1843) proclaimed in the Preface of a text which significantly influenced Foucault (1977-1975, p. 207), “Morals reformed - health preserved - industry invigorated - instruction diffused – public burthens lightened - Economy seated, as it were, upon a rock”.

On the other hand, this section has already discussed an alternative, *Foucauldian* sense of power as ‘productive’: the sense of ‘*producing*’ or ‘*constituting*’ a subject. As power ‘subjectifies’ the subjects, through on-going subjection by an all-encompassing,

²¹ As discussed in the previous section, evaluating a given power exercise as positive or negative is contingent on the specific agents’ situation, rather than reflecting any transcendental, universal classification. Clearly, “wonderful things” such as “defeating tyrannies” can be simultaneously classified as positive (by the liberated people) and negative (by the tyrants and their entourage and loyal troops).

ubiquitous power, it turns them into ‘docile bodies’, which will take the desired conduct²².

These two senses of power as ‘productive’ (producing collective objectives or producing subjects) are related, but different. They are related, as in Bentham’s argument above, encompassing the two senses: collective objectives were obtained by transforming individuals into subjects, by creating ‘docile bodies’ (Foucault, 1975/1977), something which Ribeiro (2003) argued that emphasised “the positive, productive and facilitative aspects of power” (p. 68). However, these two senses of power as ‘productive’ are also clearly different, and it is doubtful whether the process of subjectification of individuals can still unambiguously receive the qualification of ‘positive’ (Wickham, 1983). In fact, Wickham noted that “in suggesting as he [Foucault] does (...) that subjects are produced in subjugation, produced as subjects of the essence of power, Foucault is promoting one of the major misconceptions of power which he urges people to avoid - negative power” (p. 475).

Finally, it should be emphasised that both acceptations of ‘productive’ and ‘positive’ power are not deterministic, but merely *facilitative*. They are merely facilitative, because neither follow the original notions of power, when rolling billiard balls produced movement in other balls, in the causal and mechanical way of the one-dimensional framework of power, depicted at the start of the chapter.

As a summary, this subsection explored two senses of ‘productive power’. In a more mainstream sense, ‘productive power’ refers to the achievement of results and

²² As discussed above, this extreme, deterministic description must be interpreted in line with Foucault’s contingent, non-deterministic overall perspective.

may be considered ‘positive power’ (albeit the inherent relativity of any evaluation). In a typically Foucauldian sense, ‘productive power’ refers to the production of subjects through their on-going subjection. While some authors considered that both senses are related, given the need to constitute the subject in order to achieve the ‘positive’ objectives, other authors argued that Foucault’s notion of ‘subjecting the subject’ depicted power as repressive and negative, in a striking paradox when compared to Foucault’s consideration of power as positive. However, it has been argued that Foucault’s views underwent through several stages (Lukes, 2005) – including as regards the positive nature of power. This is the topic of the next subsection.

3.3.7 DISCUSSING FOUCAULT’S ‘PHASES’ AS SETTING GROUND FOR THEORETICAL DIALOGUE

Several passages in this section highlighted that Foucault’s often extreme positions, and often expressed in a metaphorical way, should be interpreted with caution. Lukes (2005) devoted most of an entire chapter (out of the two new chapters included in this second edition) to argue that Foucault’s “ultra-radical view” (Lukes, 2005, p. 88) should be, at best, taken less literally – if not plainly rejected. Indeed, such a ‘radical’ perspective would inevitably attract criticisms (see, as mere examples, Lukes, 2005; Newton, 1998; Wickham, 1983). A short subsection cannot do justice to the challenge of fully exploring the convergences and divergences between the different positions; such challenge is left for future work. This brief overview, relying mostly on Lukes (2005), is useful to argue for a more theoretically accommodative stance, at the conclusion of this section²³.

²³ Clegg *et al.*’s (2006) analysis of the ‘Foucault effect’ must also be considered in detail, in future work.

Lukes (2005) noted that Foucault's vision of ubiquitous power represented domination, "calculated manipulation", in "a one-sided, monolithic image of unidirectional control" (Lukes, 2005, p. 93), concluding with the idea that "the subject is 'constituted' through subjection (*assujettissement*) to power" (p. 95). Lukes (2005) claimed this was an "ultra-radical view" characterising a first phase of Foucault's thoughts - indeed even more radical than Lukes' position in the first, 1974 edition. Determinism tends to the infinite, as agency tends to nil.

Lukes argued that, in a second phase, Foucault accepted greater voluntarism, arguing that 'governmentality' assumes free subjects and, among other concepts, assumes rationalities of rule, "styles of reasoning embodied in governing practices" (Lukes, 2005, p. 96). It is within such an approach that Foucault (1988 – *post-mortem* publication) thus stated: "if there are relations of power throughout every social field it is because there is freedom everywhere. Now, there are effectively states of domination. In many cases the relations of power are fixed in such a way that they are perpetually asymmetrical and the margin of liberty is extremely limited" (p. 12).

However, Lukes (2005) noted that Foucault, in the interview cited above, towards the end of his life, actually developed a third stage in his thinking. Indeed, Foucault (1988) himself admitted that "I am not sure, when I began to interest myself in this problem of power, of having spoken very clearly about it or used the words needed. Now I have a much clearer idea of all that." (p. 19). But, in a negative assessment, Lukes argued that this 'Final Foucault' actually dissolved his previous 'ultra-radicalism'. Lukes (2005, pp. 96-97) drew on particular passages from Foucault (1988, p. 11): "the subject constitutes himself in an active fashion, by the practices of self". These practices are "not something the individual invents by himself" but "patterns that

he finds in the culture and which are proposed, suggested and imposed on him by his culture, his society and his social group". According to Lukes, this position "amounted to restating some elementary sociological commonplaces. Individuals are socialized: they are oriented to roles and practices that are culturally and socially given; they internalize these and may experience them as freely chosen; indeed, their freedom may (...) be the fruit of regulation – the outcome of disciplines and controls. Of course, it restates these truths in a distinctively Foucauldian way" (Lukes, 2005, p. 97).

Lukes depiction of Foucault's final position was summarised by Clegg *et al.* (2006, p. 256) as demeaning it to "old-fashioned sociological functionalism with their accounts on the centrality of the socialization process". This pejorative evaluation of Foucault was rejected by Clegg *et al.*. The discussion of their defence of Foucault's distinctive contribution (as well as the acknowledgement of some problems) is a worthy endeavour, but it is left for future work. Without developing such discussion here, it should be noted that Lukes' (2005) second edition also contains major acknowledgements of previous limitations of his prior work and acceptance of alternative conceptions. Indeed, the overall defence of Lukes' own position was grounded in several nuances and reinterpretations, as evident in the last pages of the book.

The discussion of this subsection, albeit brief, is nonetheless useful for the potential it unveils. By revisiting ideas, tensions and reconciliations previously discussed and by incorporating Lukes' (2005) critical assessment of Foucault, this discussion highlighted that there are common, fundamental principles which are mostly transversal. Based on those principles, various streams of research explored different perspectives, particular domains of social life and research topics; they developed

specific concepts and terms, endorsed peculiar styles and even deployed idiosyncratic metaphors. These differences are not irrelevant and, quite substantially, may allow certain streams of research to develop particular insights which would remain obscure to (and even remain unacknowledged and rejected by) other streams of research endorsing other characteristics. This diversity may be drawn upon in attempts to explore the potential of theoretical heterogeneity, cross-fertilisation and triangulation, such as in the attempts carried out in this thesis (see section 4.1; Hopper and Hoque, 2006; Lukka and Mouritsen, 2002; Major and Hopper, 2005).

3.3.8 CONCLUDING THOUGHTS ABOUT FOUCAULT – AND REFLECTING BACK ON OIE

This section overviewed Foucault's influential ideas about power, relating them with previously discussed conceptions. In particular, Foucault highlighted the limitations of episodic exercises of power and emphasised the advantages of a more *continuous, all-pervasive capillary form* of power, both in terms of *efficiency* but in particular in terms of *effectiveness*. Rejecting the notion of a single, sovereign source of power, Foucault emphasised *technologies* of administration, surveillance and assessment. In a distinctive perspective, Foucault argued that the fundamental effect of these technologies did not rely on the actual exercise of whatever activities they enabled. Instead, the fundamental effect, Foucault argued, lied in *permanent self-surveillance and self-discipline* by the controlled himself, due to their *knowledge* of the sheer *possibility* of being monitored. Finally, Foucault's conception of continuous, all-pervasive capillary power must stop short of concluding for a total domination of actors and a corresponding total lack of agency. In broader (and very brief) terms, there seemed to be mutual acceptance of alternative – and after all complementary –

perspectives among key theorists of power, with some common basilar traits promising to establish at least a platform for dialogue.

This section also analysed three topics particularly relevant for OIE. First, for Foucault, the ubiquitous presence of power ‘constitutes’ the subjects. Recalling chapter 2, based on Hodgson (2000), OIE emphasises the notion of ‘reconstitutive downward causation’, of how institutions lead to individuals’ *reconstitution* and to the emergence of ‘The Institutionalised Individual’. Both perspectives suggest that the ‘influenced’ entity is somehow (re)constituted, but the differences between the ‘constitution of the subject’ (in Foucauldian terms) and ‘individuals’ reconstitution’ (in OIE terms) are not negligible and should be noted. Foucault’s notion of ‘constitution’ is an ontological metaphor to convey the image that the entity becomes a ‘subject’, a ‘subjected subject’, through subjection to power (in spite of the emergence of voluntarism in some of Foucault’s writings). On the other hand, the institutional approach does not invoke the same dramatic and radical imagery: the emergence of “The Institutionalised Individual” conveys a process of ‘adjustment’ of an (already previously existent) individual; a process of ‘moulding’, at the most. In addition, OIE’s notion of ‘upward causation’ arguably attributes a wider agency to individuals, than the acknowledgement of limited voluntarism and freedom in Foucault seems willing to concede.

Second, Foucault views power as operating in a *field of force relations*, with multiple origins. Quite differently, the institutional approach emphasises one particular source of power, institutions, based on shared values and meanings (in Scapens and Macintosh’s, 1996 view; cf. Boland, 1996). It can be argued that there is room, within an institutionalist-inspired conception, to accommodate additional multiple sources of power. Recalling the above 1996 debate between the authors above, it should be noted

that Scapens and Macintosh's position was more accommodative to plural perspectives. In fact, even Boland was, essentially, 'merely' "sceptical" (p. 692) about Scapens and Macintosh's emphasis on shared values and meanings (in spite of Boland, in other occasions, plainly rejecting his somewhat radical interpretation of the two other authors' position). Within the non-deterministic and non-exclusivist common trait across explanations of social life, there seems to be room for the accommodation of Foucault's views within institutional theory, as welcomed contributions for a more holistic and realistic OIE framework.

A third major difference between Foucault and OIE also concerns the ontological conceptions of actors, with Foucault – unlike OIE theorists – granting potential agency to entities beyond individuals. Foucault accepted that additional entities can be considered actors: collectives of individuals and non-human actors. The acceptance of such conceptions in OIE requires additional discussion, which is introduced in sections 8.2 and 9.1 and must be continued in future work.

Granting an actor status to entities beyond individuals is a characteristic of Actor-Network theory (ANT), a stream of research which draws extensively from Foucault. As widely noted (e.g., Clegg, 1989; Peyton, 2009; Wickham, 1983), Foucault's thoughts tend to be situated at a high level of abstraction and, in addition, his views on power were scattered over many different publications. On the other hand, ANT has provided a more helpful basis and guidance, including for empirical, organisational studies. Therefore, ANT is the focus of the next section.

3.4 ACTOR-NETWORK THEORY (ANT)

3.4.1 AN OVERVIEW ON ANT

Actor-Network Theory (ANT) is included in the wider post-structuralist movement, alongside Foucault, from whom ANT draws extensively. ANT has found widespread acceptance and usage within the academia and now counts with numerous contributors, in particular two key authors, Michel Callon and Bruno Latour (e.g., Callon, 1986; Latour, 1987, 1997, 1999, 2004 and 2005; see also contributions in Law and Hassard, 1999).

ANT studies actors' actual actions, by analysing the mechanics of power involved when actors constitute and maintain actor-networks, operating in specific sites of power relations (Clegg *et al.*, 2006; Hyvönen *et al.*, 2008). An actor-network is a “new hybrid” (Latour, 1997)²⁴, including both human and non-human actors, “collectively referred to as actants”²⁵, all “participants in a network of heterogeneous components” (Volkoff *et al.*, 2007, p. 834; see also Legge, 2002).

‘*Human*’ actors include *individual* people and *collective* entities (types of people such as managers, machine operators, police officers, lawyers, etc.; and groups that cannot be described as ‘types of people’, such as organisations or organisational subunits). This entails an important different ontological assumption as regards the most usual perspective of OIE: ANT considers that organisations have a particular type of

²⁴ Given the HTML-form of this reference, no page numbering can be indicated.

²⁵ Quattrone and Hopper (2006, p. 216) cited the on-line article Latour (1999), clarifying that “[s]ince in English the word ‘actor’ is often limited to humans, the word ‘actant’, borrowed by semiotics, is sometimes used to include nonhumans in the definition”. However, neither the current on-line version, in www.bruno-latour.fr/articles/article/077.html, nor the published version (Latour, 2004), include such clarification.

agency: “collective agency”, as “collective forms of decision-making” (Clegg, 1989, p. 188, 187), while OIE tends to restrict the capacity of agency to individual, human actors (see section 2.3.4). In an ANT perspective, “[w]here organization achieves agency it is an accomplishment, just as it is for the individual but more so, because it involves the stabilization of power relations across an organizational field of action, and thus between many subjectivities, rather than simply within one embodied locus of subjectivities” (Clegg, 1989, p. 188).

In addition to ‘human’ actors (both individual and collective), ANT also accepts the notion of ‘*non-human*’ actors. The notion of non-human actors encompasses both non-human *living* entities (e.g., germs) and also technological devices - including all kinds of physical machines (computer, industrial devices, etc.) and even software. Therefore, as Andon *et al.* (2007, p. 276) summarised (leaving aside non-human living entities, likely less relevant for organisational issues), “ANT explores processes and relational effects within socio-technical networks of elements”, i.e., *socio-technical* relations.

In ANT, the focus is the actor-network, as a ‘hybrid’, not the isolated actor. In fact, an actor-network is a quasi-object, and quasi-objects “do not exist outside networks of relations and thereby require something *else* to be defined.” (Quattrone and Hopper, 2006, p. 219-220, emphasis in the original). An organisation is “a network of entities that do things; the network is constituted by the entities that connect themselves in the network. Both actor and network constitute, define and redefine each other” (Clegg *et al.*, 2006, p. 238). As Hyvönen *et al.* (2008) described, drawing on Latour (2005), ANT conceives the social as a “*circulating entity*” and therefore “concentrates

attention on a movement” (p. 47, emphasis in the original). The focus is therefore on socio-technical *relations*.²⁶

Since the word ‘network’ may have so many meanings, it is important to clarify its meaning in the context of ANT. Hyvönen *et al.* (2008) argued that “the ANT technical ‘network’ metaphor has often been understood in perhaps a too concrete way. Latour (2005) did not wish to call the social a ‘network’ but instead to capture the interaction between various actors as a series of transformations and translations” (p. 47). For ANT, ‘network’ does not have a “common technical meaning in the sense of a sewage, or train, or subway, or telephone ‘network’. Recent technologies have often the character of a network, that is, of exclusively related yet very distant elements with the circulation between nodes being made compulsory through a set of rigorous paths giving to a few nodes a strategic character, [such as] a computer network. Such is not however the basic metaphor of an actor-network. (...) An actor-network may lack all the characteristics of a technical network - it may be local, it may have no compulsory paths, no strategically positioned nodes” (Latour, 1997)²⁷.

The focus on the network, on the connections and relations within and across the networks, informs the ANT ontological view of power. In ANT’s “model the concept ‘power’ is treated as a composition, that is, ‘the composition of a set of actors who are temporarily enrolled in the schemes of the powerful and who accordingly lend their

²⁶ The reader should note that the expression ‘socio-technical relations’ was used, at the end of the last two paragraphs, to highlight the ‘socio-technical’ and the ‘relations’ components, respectively.

²⁷ Latour (1997) further explained, “[p]ut too simply ANT is a change of metaphors to describe essences: instead of surfaces one gets filaments (...). More precisely it is a change of topology. Instead of thinking in terms of surfaces - two dimension - or spheres - three dimension - one is asked to think in terms of nodes that have as many dimensions as they have connections. As a first approximation, the ANT claims that modern societies cannot be described without recognizing them as having a fibrous, thread-like, wiry, stringy, ropy, capillary character that is never captured by the notions of levels, layers, territories, spheres, categories, structure, systems”.

efforts to his/her project' (Law, 1986:17)" (Lodh and Gaffikin, 2003, p. 88).²⁸ This view also entails that "networks are never completely fixed or stable, but rather fragile and transient and, hence, require hard work on the part of those who seek centrality in the network to develop and maintain it" (Legge, 2002, p. 78).

The two previous paragraphs link back to the rejection of the notion of the power of a single sovereign (see section 3.2). Instead, the outcomes will depend crucially on "the concerted actions of many others - the *orchestration* of power – where it is less the power over some entity held by its possessor that matters so much as the concertative power that surrounds and embeds this potential power over resources" (Clegg *et al.*, 2006, p. 224).

In other words, *organisation* is key to any successful strategy of power (Ribeiro, 2003). Latour (1997) further clarified the notion (already advanced in the previous section on Foucault) that an immense power may result from the strategic articulation of (individually) weak powers. "To remain at this very intuitive level, ANT is a simple material resistance argument. Strength does not come from concentration, purity and unity, but from dissemination, heterogeneity and the careful plaiting of weak ties. (...) [R]esistance, obduracy and sturdiness is more easily achieved through netting, lacing, weaving, twisting, of ties that are weak by themselves, and (...) each tie, no matter how strong, is itself woven out of still weaker threads."²⁹

²⁸ See Callon (1986) for a seminal discussion of ANT's four stages: problematisation, interessement, enrolment, and mobilisation.

²⁹ Granovetter (1973) is a classic work on the importance of weak ties. However, in spite of some (at least apparent) affinities with the ANT approach, there are significant differences. For example, Granovetter focused on social networks (while ANT's scope goes beyond social actors and networks) and his main objective was to link the micro and the macro levels of sociological theory (a distinction which does not match ANT's ontological assumptions). As such, in spite of apparent, first-sight similarities, Granovetter

In spite of the importance of ANT's particular ontological conceptions about actors and networks, Clegg *et al.* (2006) argued that ANT offers, more than a theory, a method. ANT's focuses on researching practices: "how the actors develop the mechanics of power as they construct and maintain heterogeneous actors networks" (Clegg *et al.*, 2006, p. 238), and even extend them. As a suitable research method, ANT recommends following the actors and analysing the traces they left when deploying their strategies and carrying out their practices. By recommending to research the practices of actors and the traces they left, ANT belongs to the approach known as 'Strategy as Practice' (Jarzabkowski and Whittington, 2008; see Carter *et al.*, 2008a and 2008b for criticisms).

Foucault's and ANT concepts highlight the limitations of the initial conceptions of power analysed in this chapter (especially Dahl's and Bachrach and Baratz's), which considered locatable, human *As* and *Bs*. Foucault and Actor-Network theorists expanded the concept of power and the entities which can enter power relations. These entities are seen as a dispersed mass, whose identities are relationally defined. They include both human and non-human actors (actants), individual or collective, all as connected participants in a *socio-technical* network. It is indeed the 'network' which constitutes the ontological referent of ANT.

The fundamental outlines of ANT have been sketched above. Two particular contributions to ANT should now be analysed autonomously, in particular since they are key in Clegg's (1989) framework, adopted in the next section. These contributions concern the connections and routes within a network. As such, the next subsection

(1973) cannot be considered as (before its time!) representative of ANT. Similar comments apply to the revisit of this seminal paper, in Granovetter (1983).

analyses the notions of ‘nodal points’ and ‘obligatory passage points’, proposed by Laclau and Mouffe (1985) and Callon (1986), respectively.

3.4.2 NODAL POINTS AND OBLIGATORY PASSAGE POINTS: THE CONTRIBUTIONS OF LACLAU AND MOUFFE, AND CALLON

Upon an unstable terrain of shifting alliances, power outcomes would tend to be unstable. However, should disciplinary power be effectively deployed and achieve an overwhelming control over subjects, then it could be expected that the underlying norms and practices achieve some stability. In other words, as an effect of disciplinary power, (at least temporary) phenomena of stability and fixity may occur.

The issue of fixity drew the attention of Laclau and Mouffe (1985) (see Wenman, 2003 for a discussion of the divergences between the later works of the two authors). Laclau (1983, p. 22, cited in Clegg, 1989, p. 178) took the relatively consensual starting point of the “[i]nfinity of the social”. From there, Laclau considered that this “[i]nfinity of the social” implied that “any structural system is limited, that it is always surrounded by an ‘excess of meaning’ which it is unable to master and that, consequently, ‘society’ as a unitary and intelligible object (...) is an impossibility” (p. 22).

Most readers would readily agree with the epistemological side of this statement, concerning the impossibility of an absolute knowledge about society, and even with the ontological view that such society is not ‘unitary’. Beyond epistemology, Laclau developed more radical ontological consequences about society, rejecting the existence of a fixed system of positions. According to Laclau, no positions are fixed, in line with

Foucault's 'unstable terrain'. In addition, the same way Foucault considered that power is *relationally* attributed to actors, Laclau and Mouffe (1985) considered that also *meaning* (the main concern of these authors) within society and actors is *relational*; relations between society and actors are not fixed, so meaning can never be fixed in a final, stable and definitive way, either. And, like Foucault accepted the stabilisation (though temporary and precarious it might be) of norms and practices through disciplinary power, so Laclau and Mouffe proposed (merely) *partial* fixations of *meaning*.

So, how can meaning be fixed (even if only partially and temporarily)? Laclau and Mouffe (1985, p. 113) proposed the "construction of nodal points which partially fix meaning", as devices of a rhetorical, textual and semiotic nature. A similar notion of '*Obligatory Passage Points*' was put forward by Callon (1986). 'Obligatory passage points' represent devices that certain actors propose to impose certain rules, to conduct other actors towards certain meanings that favour the former actors. Callon considered not only rhetorical devices, but also material, physical devices. In addition to rules of meaning (the focus of Laclau and Mouffe), rhetorical and material Obligatory Passage Points can also fix the rules guiding actors' actions, and constrain the possibilities of action available to the actors. When successful, these devices lead to a (temporary and partial) stabilisation or fixity of such rules - though permanently challengeable as actors continuously deploy their strategies.

3.4.3 CONCLUDING THOUGHTS ABOUT ANT (AND FOUCAULT) – AND REFLECTING BACK ON RULES IN OIE

Significant compatibility and even similarities exist between the positions explored in this section (on ANT) and the previous section (on Foucault) – hardly surprising, given the strong influence that Foucault’s writings exerted on ANT writers. The main differences reside in their key concepts and concerns. Foucault focused on the mechanisms of power to create a pervasive surveillance, leading to an ultimate ‘subjectification’ of the subject, i.e., in constituting him as a subject. Laclau and Mouffe, on the other hand, stressed the lack of definitive, fixed positions and meanings; correspondingly, they were more interested in understanding how ‘necessary nodal points’ could be built and how they fixed meanings, though in only a temporary and partial way (although, clearly, such concerns were also present in Foucault’s work). In addition, Callon argued that rules may also be imposed by material devices, in addition to rhetorical devices. Finally, an extended interpretation of the applicability of ‘nodal points’ or ‘Obligatory Passage Points’ goes beyond only rules of meaning and includes, more generally, diversified unavoidable factors orienting and constraining actors’ actions.

At this stage, it is useful to refer again to the previous chapter on institutional theory. A salient connection concerns *rules*. Two of the pillars (actually, structures) of Giddens’ theory are interpretive rules and normative rules. Interpretive rules form structures of *signification*, by creating meaning. Normative rules form structures of *legitimation*, producing a morality that involves value. The third pillar, or structure, consists of resources. There are clearly close parallels between Giddens’ three structures (interpretive and normative rules and resources) and the three aspects considered by

ANT to cause and fix power (rules of meaning, the rules orienting actions and material conditions). Such similarities ground expectations that the theoretical dialogue proposed in the previous section can indeed flourish, and this is attempted in the remainder of the chapter and thesis.

Many of these insights, especially post-structuralist ones, were integrated by Stewart Clegg. Clegg (1989) proposed a framework of power suggesting the existence of various circuits of power. This framework is developed in next section.

3.5 CLEGG'S FRAMEWORK OF 'CIRCUITS OF POWER'

3.5.1 RATIONALE FOR ADOPTING CLEGG'S FRAMEWORK

Clegg (1989)³⁰ drew on the views of power and insights from various theorists analysed in this chapter, and integrated them within a Foucauldian framework. Clegg's framework explored how different types of power circulate across the networks of actors, which effects those powers produce and how they are linked together, in relations of support or opposition, promoting stability and / or change.

Many authors have used Clegg's insights, although without using his entire framework (Antonsen, 2009; van Marrewijk *et al.*, 2008, Wainwright, 2007³¹ and Williams *et al.*, 2006 are recent examples). Additionally, a significant number of authors presented, empirically applied or developed Clegg's entire framework. Some examples are Wickramasinghe (2006) (a theoretical review), Davenport and Leitch

³⁰ Henceforth, unless otherwise stated, 'Clegg' refers to Clegg (1989).

³¹ In a thesis submitted at the University of Dundee, the author could not help mentioning this work on discipline and resistance of working women in Dundee's jute industry. Wainwright (2003), also about Dundee's history, was also inspired in Foucault and therefore shares a similar approach.

(2005) (about the use of strategic ambiguity within a facilitative circuit of power), Ribeiro (2003) (a case study about resistance to management accounting, partly summarised in Ribeiro and Scapens, 2006), Lagendijk and Cornford (2000) (an application to regional development), and a number of papers by Taylor and Hallsworth: Taylor (1995), about interrelationships of enterprises; Hallsworth (1995), about the institutional context of British retailing; Hallsworth and Taylor (1996) and Hallsworth (1997), about the role of power in shaping the environment of the retail sector; Hallsworth and Taylor (1999) and Taylor and Hallsworth (2000), about the dynamics of power plays at the transport industry level. Additional studies using Clegg's framework are indicated in Clegg *et al.* (2006, pp. 264-265).

The studies above which used Clegg's entire framework had a particular influence in this thesis, in different and complementary ways. Lagendijk and Cornford (2000) emphasised the benefits of the integrative nature of Clegg's framework, including notions from institutional theory (in particular, NIS), organisational theory and ANT. Davenport and Leitch (2005) made a rather flexible interpretation of Clegg's framework and still were the ones picked by Clegg *et al.* (2006) as an empirical application of the framework; this encouraged the researcher to go beyond the original framework. The various papers from Taylor and Hallsworth drew heavily on Clegg's framework and, collectively, suggested its explanatory potential to various fields. Collectively, the papers mentioned in this paragraph encouraged the author to adopt the 'more ambitious' option of applying the 'whole framework' in a single study, rather than only choosing "a segment" of the framework, as Wickramasinghe (2006, p. 354) more cautiously advised (an arguably questionable advice, given the integrative nature of Clegg's framework).

In addition to the influence of the above mentioned studies, the most relevant indication came from Ribeiro (2003), who carried out the deepest analysis of all the cited authors, both theoretically and empirically (the larger size of Ribeiro's work - a PhD thesis - also promoted the greater depth). Ribeiro suggested that Clegg's framework provided explanatory power for his case study and that it could be fruitfully linked with the main branches of institutional theory, and OIE in particular. In addition, within the mentioned studies, Ribeiro (2003) was one of the only two case-based studies of a single organisation (the other was Davenport and Leitch, 2005) and the only one which had an intra-organisational focus. Therefore, Ribeiro (2003) was the research whose empirical setting, theoretical background and methodological approach most resembled this research. Together, these two works further suggested that the framework is indeed suited to research single organisations and intra-organisational processes.

As the researcher reviewed the literature on power to interpret the empirical puzzle that emerged in a particular empirical setting (see sections 1.1 and 4.1), it was considered that Clegg's framework contributed to make sense of the case study. Importantly, the researcher also perceived that Clegg's framework was not only broadly compatible, but indeed a potential complement, to the institutional theory lenses initially deployed in the research. For these reasons, Clegg's framework of 'Circuits of Power' became, in a gradual process, adopted as a structuring framework for this thesis. It should be noted that Clegg *et al.* (2006) revisited Clegg's (1989) original framework, but without changing it. Therefore, following the option in chapter 2 (regarding the core models in Burns and Scapens, 2000 and 2008), the earlier publication was retained for referencing purposes.

3.5.2 SOME ASSUMPTIONS OF CLEGG'S FRAMEWORK

As already noted, Clegg was eclectic in drawing inspiration from several theorists on power, ranging from Dahl, Bachrach and Baratz, and Lukes, to post-structuralists like Foucault, Laclau, Mouffe and Callon. However, the final framework clearly endorses a post-structuralist perspective, along with the insights of the last four authors.

Clegg started by the premise that all organisational activities are saturated with political activity. "Power is the most central concept in the analysis of organization(s) and organizing" (Clegg *et al.*, 2006). Sharing Mintzberg's (1983) emphasis on obedience, Clegg drew on Foucauldian insights to consider such organisational achievement dependent on mechanisms labelled 'disciplinary practices'. They are surveillance mechanisms of micro-techniques of power, affecting both individuals and collective bodies. Surveillance may occur through various mechanisms, and can be achieved through "personal, technical, bureaucratic or legal techniques". Surveillance can range from simple direct control, "cultural practices of moral endorsement, enablement and suasion", "more formalized technical knowledge" to the broader "disciplinary gaze" promoting self-monitoring and surveillance (Clegg, 1989, p. 191).

These disciplinary techniques may be drawn by particular organisational actors attempting to achieve particular objectives in particular organisations, as particular loci of individual and collective decisions and actions. This perspective is in line with ANT's focus on the micro level and on the actor-network itself, as a network constituted by connected entities. The diversity of organisational actors (individual and collective) promotes diversified agendas (as Mintzberg, 1983 concurred, when he analysed the

‘System of Politics’), and outcomes are highly contingent and not deterministically predictable.

The recognition of the contingency of outcomes means that *control is never actually total*, along with the perspective, discussed in previous sections, on power as a contingent, non-deterministic capacity. No matter how much power an actor may, at a certain moment, manage to mobilise, that actor will never be capable of ensuring total control.

The impossibility of ensuring total control derives from two main factors: unpredictability and agency. First, organisational life is naturally unpredictable – unpredictable events, by themselves, always have the potential to undermine virtually anything, including existing power relations. Second, and perhaps more importantly, the instable and pluralist nature of the networked fabric of organisations warrants the emergence of resistance and points of fraction within the network. Agency is at stake here, and the recognition of the need of disciplinary practices is also recognition of potential resistance and diverging agency. Clegg (1989, p. 194) recommended conceiving agency in an integrated way, both “as an agent of signification” and “as an agent of production”. “Both meaning and body, fused in the person, are capacities for resisting the encroachment of organization control”, i.e., “two sources of resistance, which require some disciplining if *any* control is to be achieved” (*‘any’* was emphasised to contrast with an unattainable *‘total’* control). Hence the need to use the various disciplinary practices in an integrated way.

The previous paragraphs depict the inherent instability of organisational fabric, relations and powers. As described in previous sections, power is seen as *relationally*

attributed or made available to particular actors, rather than being *their own* power or the power being *in* them. It is the relations of those actors within the actor-network, and the ‘obligatory passage points’ or ‘nodal points’ that those actors created, that actually make them (relationally) powerful. Importantly, those ‘obligatory passage points’ also take part in the eventual fixing of those actors’ power relations.

Therefore, stability in power relations may emerge at particular times, periods and spaces. Like Laclau and Mouffe, Clegg was interested in understanding what may fix power relations – even if only temporarily. Using Ribeiro’s (2003, p. 71) visualisation, “[t]he very term ‘circuits’ conveys the idea of conduits through which social relations regularly flow. Sometimes, conduits may be tight and close off courses of action alternative to those that are fixed through them”. Furthermore, the imagery of ‘circuits’ is also consistent with the ANT conception of the social as a *circulating entity* in which actors develop efforts, and may temporarily achieve, instances of stabilisation (Hyvönen *et al.*, 2008).

Conceiving that powers may be somehow ‘fixed’ means that the overall framework will have to go beyond an episodic view of power – in which power effects, by definition, do not extend beyond the particular situation, or episode, where they are exercised. This episodic perspective is the most visible part of the overall framework - presented in figure 3.3 as proposed by Clegg (1989), with minor visual changes. The three circuits of the framework function in an integrated manner, but for practical reasons they are explored separately in the next subsections, starting by the ‘episodic circuit of power’.

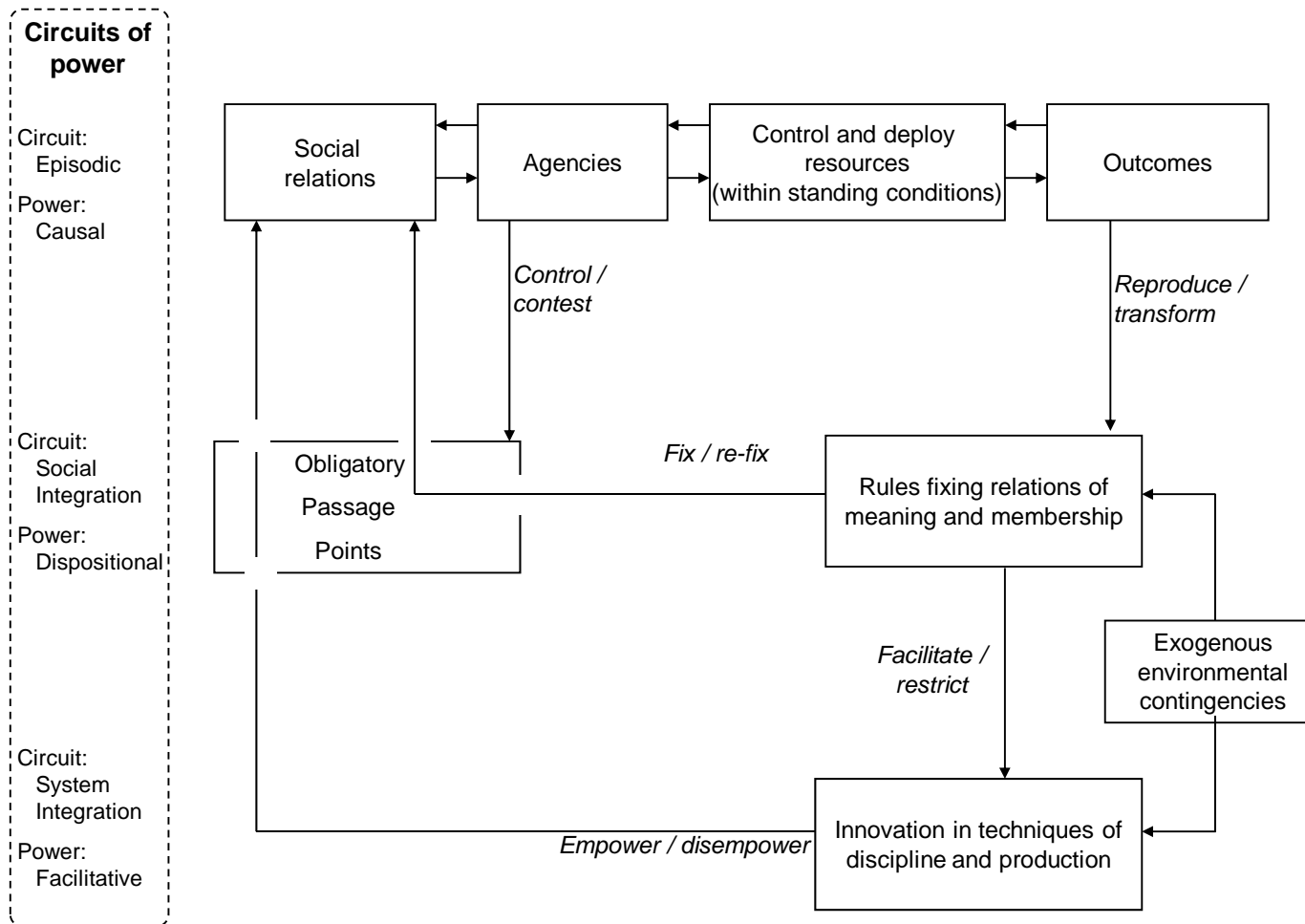


Figure 3.3: Circuits of power (Source: Clegg, 1989, p. 214 and Ribeiro, 2003, p. 73, with minor adaptations)

3.5.3 THE EPISODIC CIRCUIT OF POWER

The most visible circuit in a social system is the episodic circuit of power. It is constituted by the actions carried out by actors in their social relations, through which they try to exercise power in their actor-network. Power is exercised by actors in particular social encounters or events, i.e., episodically, in order to try to secure the achievement of outcomes which favour their interests.

At a first glance, this description may be related with the Hobbesian sovereign view of power, emanating from a single, identifiable entity. Still within the mainstream view of power, this description may be also considered compatible with the related concept of power as a commodity, a *thing*, something which can be acquired, possessed and exercised. This power is associated with the control of resources, exercised by an actor trying to cause a certain effect on the behaviour of others – the traditional views of ‘power *over*’ and ‘power *as cause*’.

However, the capacity to control resources and deploy them is variable and never total, resistance to the exercise of power is inevitable and causality is never guaranteed – unlike the universal laws of the natural sciences (Harré and Madden, 1975). Moreover, this exercise of power based on control of resources occurs in a particular time, space and social setting – i.e., within particular standing conditions (see subsection 3.2.2).

This consideration of the extant standing conditions distances this episodic circuit of power from Dahl’s single concept of power, which does not recognise other influences and views, as if it were “a free-standing circuit” (Clegg, 1989, p. 211). In

Clegg's framework, the outcomes of any episodic exercise of power depend on the network of social relations, which have been stabilised through the other two circuits through which power flows: the established *rules* and *technical* (analysed next). In other words, the episodic circuit of power is not isolated or self-contained. On the contrary, "[p]ower, viewed episodically, may move through circuits in which rules, relations and resources that are constitutive of power are translated, fixed and reproduced / transformed" (p. 211).

Therefore, the next subsections examine those two other circuits determining and stabilising the standing conditions in which episodic social interactions and power exercises occur: the circuit of social integration, dealing with established rules (analysed next); and the circuit of system integration, dealing with techniques (analysed afterwards).

3.5.4 THE CIRCUIT OF SOCIAL INTEGRATION – RULES AS ‘OBLIGATORY PASSAGE POINTS’

The circuit of social integration expresses the *prevailing rules of practice* within a social system. Ribeiro (2003) highlighted the importance of *rules* to achieve outcomes by coordinating the actions and interactions of actors, who may “enact them possibly in recurrent fashion” (p. 65). Therefore, ‘prevailing’, in this context, goes beyond the existence of such rules, either formal or informal, and includes their interpretation and acceptance by organisational actors – i.e., rules create the *disposition* among actors to behave in certain ways. Hence, Clegg identified this circuit with a type of power labelled *dispositional*. Additionally, Clegg also highlighted the *practice* dimension –

i.e., whether those dispositions to act according to a rule are actually followed by its actual enactment.

These rules of practice essentially refer to *rules of meaning and membership*. Rules of membership are analysed first. Rules of *membership* refer to what actors believe to be appropriate behaviours. The desire to adopt appropriate behaviours is considered to derive from the actors' status of members of certain groups – or, more fundamentally (Munro, 1999), from the actors' *ambitions* to be included as members in certain groups, and to be accepted, retained and promoted members of those groups. Drawing from the discussion of Foucauldian insights on relational identities, in subsection 3.3.3, such membership should be “regarded as the effect of devices of categorization; thus identity [including the belonging to, and identification with, a group] is seen as contingent, provisional, achieved, not given, (...) as always in process. (...) Identities are not absolute but are always relational.” (Clegg, 1989, p. 151). Munro (1999) emphasised in particular the *provisional* and *achieved nature of membership*, rather than reified membership, and how this permanent quest for membership influences actors' behaviours – through the rules of membership perceived and accepted by the actors.

In turn, rules of *meaning* refer to the ways actors make sense of the world, events, the others and themselves. They shape the way actors' knowledge is constructed. It should be noted that rules of meaning and membership are related. As Clegg noted, “meanings [may] become (...) fixed on local membership conditions” (p. 226). Therefore, rules of membership – indicating actors which behaviours are ‘appropriate’ – may include, and require, the endorsement of certain rules of meaning.

The circuit of social integration clearly shares important affinities with structuration and *institutional theory*, in particular Old-Institutional Economics (*OIE*), given their mutual concern on rules, the recognition of how rules may strongly influence actors' actions, and even the two proposed types of rules (Giddens' interpretive and normative rules). Furthermore, both approaches could converge in considering that *in as much as* rules are widely known, similarly interpreted, accepted and enacted within a social system, they provide one of the pillars of stability of organisational action (in Clegg's terms, of the episodic circuit), and generate strong tendencies to isomorphism and uniformity within the relational field.

Notwithstanding, there are noteworthy differences between these theoretical perspectives. First, institutional theory tends to assume that rules are *indeed* similarly known, interpreted, accepted and enacted within a social system. On the contrary, in Clegg's circuit of social integration, such similarity is *not* so easily taken for granted, as discussed next. Second, both approaches do *not* converge in the underlying factor which *may* produce similarity within a social system. The similarities that institutional theory tends to assume to exist can be traced to institutions (which are also assumed to exist). Those similarities are traced to 'shared values and meanings' at a high institutional level (Scapens and Macintosh, 1996) and their isomorphic wide-ranging effect. On the contrary, in Clegg's view, similarity within the circuit of social integration is dependent on the success of strategies aiming to disseminate and fix those rules.

In Clegg's view, full awareness, similar interpretation, total acceptance and flawless recurrent enactment of those rules (of meaning or membership) is, overall, unlikely, for a number of reasons. For example, formal rules may be *unknown* to actors, in total or partially. Importantly, there may be *ambiguity* in their interpretation, as

highlighted by Boland (1996). Clegg (1975) emphasised the *indexicality* of rules, i.e., how *rules are dependent on the context in which they are drawn upon by agents*. As analysed in subsection 2.3.1, rules are dependent on the context of *interpreters*, i.e., the agents; and rules are dependent on the context of *interpretation*, i.e., *the actual situation* in which the rule is interpreted and potentially enacted. In addition, actors may *not accept* the rules and may *decide not to enact* the rules. “Choice is essential to rules”, and what is at stake is a “normative rather than a causal imperative” (Clegg 1989, p. 211). Finally, actors may also *not be able* to enact the rules which they had accepted and wished to enact – because, e.g., there are no adequate conditions to enact them (this concerns the circuit of system integration, analysed next).

In other words, the ‘prevalence’ of the rules underlying the actions within the actor-network is likely to be variable. In addition, the rules proposed to actors – formal and informal rules ‘external’ to actors (subsection 2.3.1) - are also subject to reproduction or transformation; they are not static, immutable across time and space.

So, in brief, and in line with the discussion on rules in chapter 2, there is no *a priori* expectation or assumption that the various aspects of rules will be similar across actors. And when such similarity exists (or, more accurately, *to the extent* such similarity exists), that outcome is not only an *achievement*, but also a *contingent, temporary* and *fragile* achievement. And sustaining such achievement is likely to require *efforts to fix* that rule – to stabilise its knowledge, interpretation, acceptance and enactment across space (i.e., actors) and time.

As such, considering a potential influence on rules, there are many positions within social networks which relationally attribute significant power to the actors who,

at a certain time, occupy those positions and develop strategies to influence prevalent rules. Examples of such positions are being a ‘creator’ of rules (a formal legislator, at whatever level; or a creator of informal rules); a divulgator or evangeliser; a provider of interpretations or re-interpretations of rules (i.e., authoritatively determine what they mean, and then fix such interpretation among actors); an actor who reminds or enforces those interpretations and their following. All these activities are important to make power flow through this circuit, and hence promote *social integration – considering the content and direction pointed by those particular rules*.

So, actors who influence and achieve social integration through the *creation and fixing of appropriate dispositions*, based on widely known and accepted *rules* (and potentially enacted, later), are creating *standing conditions* which will favour their interests when the episodic exercises of causal power take place, within the episodic circuit.

Clearly, the above does not imply that one single set of rules will be prevalent, or that one single actor will be active and successful in building this dispositional power. On the contrary, multiple actors may try to influence this dispositional power by proposing alternative, potentially conflicting rules, leading to “plurality of the rules governing the reproduction of particular sets of social structures” (Whittington, 1992, p. 704). In this case, “the configuration of the circuit of social integration is not tightly built” (Ribeiro, 2003, p. 74), making the circuit of social integration subject to contestation.

As mentioned, the circuit of social integration concerns rules fixing relations of meaning and membership, ultimately influencing the episodic circuit of power. Clegg

suggested that this influence occurs whenever *rules become 'obligatory passage points'* (Callon, 1986) or 'nodal points' (Laclau and Mouffe, 1985). When successfully established within a social system, rules may become pathways, points of reference through which actors go when making sense of the world and when deciding their course of action. If a rule (or a consistent set of rules) does become solidly established in a social system, if it is not challenged by competing, alternative rules, then that rule may establish itself as an 'obligatory passage point' in the actors' sense-making, decision-making and action processes. On the other hand, if new rules are confronted with extant competing rules, then the 'obligatory nature' of the extant passage point (the extant rule) is challenged, and there will be a struggle within the network about defining *'the'* obligatory passage point, or defining how competing obligatory passage points may coexist. And, just like the prevalence of certain rules, in a certain time and space context, does not imply that such rules will be immutable, "[t]hese compulsory passage points may be stabilised in periods of quiescence but they can never be static" (Taylor, 1995, p. 114).

Summarising, the successful establishment of certain rules as obligatory passage points in actors' mental (and action) processes corresponds to an achievement of the actors who strategically proposed them – though temporal and partial that achievement may be.

This subsection focused on the circuit of social integration, and in particular on how it may influence the episodic circuit. In addition, the circuit of social integration may also influence the circuit of system integration - the third circuit of power, which is analysed next.

3.5.5 THE CIRCUIT OF SYSTEM INTEGRATION – TECHNIQUES AS ‘OBLIGATORY PASSAGE POINTS’

Clegg labelled the third circuit of power as ‘system integration’, consisting of the ‘*material conditions*’ of *techniques of production and discipline*. It conveys the view of power as facilitative and productive, of power as positive. The concept of techniques is a broad one, and can be as varied as production machinery, management practices, information systems, organisational structures, business processes and work practices. As Lockwood (1964, p. 251), cited in Clegg (1989, p. 224), summarised, techniques include “not only the material means of production, but what also Weber frequently refers to as the material means of organization and violence” (see also Nelson’s, 2007 argument for the close ties between ‘physical’ and ‘social’ technologies). This subsection only includes this brief overview of the circuit of system integration. The next subsections now analyse this circuit in greater depth and, in particular, in an integrated way, in its relations with the other circuits, reflecting the integrative nature of the overall framework.

3.5.6 RELATING FIXITY AND CHANGE WITH THE CIRCUITS OF SOCIAL AND SYSTEM INTEGRATION

A first main emphasis by Clegg was presenting the circuit of system integration as the major source of change, of potential instability and transformation in the circuits of power. Shifts in the circuit of system integration are typically described as a consequence of strategic attempts and actions by actors, in order to achieve particular goals. In a wider, supra-organisational context, “[i]n a Schumpeterian sense of creative destruction, technology can both build and destroy work regimes and regimes of accumulation” (Taylor and Hallsworth, 2000, p. 245). The circuit of system integration

thus stands in strike contrast with the circuit of social integration, which stabilises standing conditions by fixing rules of meaning and membership.

However, in Clegg's framework, being a source of change and innovation is not incompatible with creating 'fixity' features – on the contrary. Technologies introduced through the circuit of systems integration will also be a part of actors' strategic attempts to create 'obligatory passage points' – a similar process as described above for the circuit of social integration. Strategic actors introducing new techniques suiting their interests will strive to consolidate those techniques as the pathways which actors must follow in their daily interactions and decisions. So, one of Clegg's main emphases resided on how the circuit of system integration can empower or disempower agencies, and how it can create 'obligatory passage points'.

A second main emphasis was that the circuit of system integration “has to be fixed on obligatory points of passage through these [rules of meaning and membership] if it is to have any effectiveness” (Clegg, 1989, p. 224). I.e., the circuit of system integration is considered to be contingent of the circuit of social integration. Clegg argued that prevailing rules can facilitate or restrict the actual adoption and acceptance of new technologies – a capacity depicted in the framework by the downward arrow from 'rules' to 'techniques'. Any technical innovation has to be made sense of, interpreted and acted upon by actors, so actors' rules are indeed an unavoidable factor. “[S]ocial integration (...) cannot be avoided by any potential innovation, even where it has been exogenously produced with respect to any specific system of circuits” (Clegg, 1989, p. 239). Moreover, 'indexicality' (context dependency) of rules interpretation and enactment reduces even more any direct causality implicit in a technological deterministic view. In fact, technological determinism (as any other deterministic

causation) is rejected in this framework³², and “no automaticity attaches to these processes” (p. 236).

Finally, and in spite of the rejection of technological determinism, Clegg briefly referred that “the circuit of system integration (...) [can generate] new techniques of production and new modes of discipline which, if they are not already present within existing rules of practice, have the capacity to transform these” (p. 224). However, this capacity of techniques to influence rules, i.e., the capacity of the circuit of system integration to influence the circuit of social integration, is relatively neglected. For example, the graphic depiction of the framework does not represent the possibility of techniques influencing rules (this mismatch between the theoretical conceptualisation and the graphic representation of the framework is addressed in one of the contributions of section 8.1).

3.5.7 CONCLUDING THOUGHTS ABOUT CLEGG’S FRAMEWORK – AND REFLECTING BACK AGAIN ON OIE

This section presented Clegg’s framework of circuits of power. Clegg’s framework proposes an integrated and fluid conception of power as circulating within three circuits. One circuit is episodical and concerns the most visible aspect of power, in concrete interactions among actors. The two other circuits are structural: the circuit of

³² Some authors adopting Clegg’s framework characterised the potential of the circuit of systems integration to introduce change in the circuits of power in a technologically deterministic way which is inconsistent with Clegg’s approach. E.g., Taylor’s (1995) description of the potential consequences of new techniques neglects the constraining role of existing rules. Taylor claimed that, as a consequence of technological changes, “all the processes of the causal and dispositional circuits of power are challenged or subverted. Standing conditions no longer stand. Rule fixing, meaning and membership are changed” (Taylor, 1995, p. 116). Also, Taylor’s claim that the circuit of system integration is broader than the other circuits (also reflected in his graphic adaptation of the framework) is theoretically unjustified. Especially when compared with the circuit of social integration, no comparison of scope is possible: they are simply circuits with different natures. Finally, his graphic framework was inconsistent with his own technological determinism, since he preserved Clegg’s unidirectional link from rules to techniques.

social integration (concerning rules of meaning and membership) and the circuit of system integration (concerning material conditions – techniques in a broad sense). Both structural circuits may potentially create Obligatory Passage Points, defining the standing conditions in which the episodic interactions will occur. Therefore, agents wishing to achieve a more structural, less episodic and intermittent power, should attempt to introduce and fix rules and techniques promoting the attainment of their particular interests. Moreover, agents should attempt to resist the introduction of rules and techniques perceived to be detrimental to their interests and, should such rules be already prevalent, attempt to change them.

The analysis of the circuits of power, and in particular of the two structural circuits of power, identified links with structuralist and institutional approaches. The most direct connections concern the circuit of social integration. There is a common concern on rules and there are clear parallels between rules of meaning and membership and Giddens' interpretive and normative rules. However, institutional theory assumption on the existence of institutions and their profound and isomorphic effects favour the consideration that rules may tend to be 'similar' within particular social settings and hence promote cohesion, coordination and stability. On the other hand, Clegg's Foucauldian focus on local and diversified arenas of struggles makes the occurrence of similarities *a priori* less plausible. The potential deployment of competing strategies of power by different actors, based on attempts to introduce alternative sets of rules, and further compounded with the inherent indexicality of rules, run counter to the acceptance of institutional uniformity across the social setting. Combining Giddens and ANT-inspired works in the accounting field, Moilanen (2008, p. 254) noted that "the meanings of accounting signifiers may vary in social

interaction”; therefore, a particular accounting concept “can be given different meanings” (p. 266) within an organisation.

The circuit of system integration is depicted as the major source of change in the circuits of power, typically as a consequence of actors’ strategic attempts to achieve their objectives. Indeed, this view is also shared by theorists unrelated with post-structuralism. E.g., Pettigrew (cited by Whittington, 1992, p. 700) discussed organisational structure (a technique included by Clegg in the circuit of system integration) and demonstrated “how aspects of structure (...) are mobilised or activated by actors and groups as they seek to obtain outcomes important to them” (Pettigrew, 1985, p. 37). This depiction of the circuit of system integration as a source of change, vs. the circuit of social integration as promoting stability, actually finds a resonance in the dichotomy between technology and institutions in much OIE literature (Lawson, 2003). According to such (criticised) dichotomy, technology “serves as a continuous internal impulse to change”, while institutions “merely (...)constrain, (...) render everything static: without technology there would be no change.” (Lawson, 2003, p. 176). However, the dynamism of Clegg’s framework can also accommodate change processes originated in the circuit of social integration, although this is not the main source of change underlying the framework (this topic is addressed in one of the proposed developments to Clegg’s model, in section 8.1).

Finally, the emphasis that techniques (and their introduction) are contingent on extant rules resonates with institutional theory insights. E.g., Burns (2000) and Burns and Scapens (2000) insistently emphasised such point. Nelson (2007), after a general argument for the need for the co-evolution of ‘social’ technologies and ‘physical’ technologies, then particularly emphasised one of the directions of causality: how

‘social’ technologies can support or constrain ‘physical’ technological change and economic benefits.

3.6 CONCLUSION

The researcher’s interest on the topic of power emerged during the course of an empirical fieldwork, since power was perceived to underlie key events in the empirical setting being studied. Given the initial theoretical lenses of institutional theory, an additional literature analysis was conducted and considered that power was a crucial and promising topic for institutional theory, although largely neglected for a long time.

This chapter reviewed the adopted literature on power, situating it within the wider evolution of power conceptions. Greater attention was given to recent Foucauldian and post-structuralist approaches, and in particular to Clegg’s framework of circuits of power. In addition, this chapter identified some common grounds between institutional theory and Clegg’s framework (and other approaches to power, mostly inspired by Foucault and ANT). There are close parallels between Giddens’ three structures (interpretive and normative rules and resources) and the three aspects considered by ANT to cause and fix power (rules of meaning, the rules orienting actions and material conditions). In turn, Clegg’s framework highlights how the definition of rules can be a part of strategic actors’ attempts to relationally gain power within the actor-network, to make those rules become accepted by the other actors and then enacted on everyday practices. In Clegg’s framework, rules are both a consequence and a source of power. Such perspective is not typically highlighted by institutional theory, which tends to emphasise the isomorphic role of institutions upon interpreted, accepted and enacted rules.

The case study, presented in chapters 5, 6 and 7, draws mostly on Clegg's framework to explore and make sense of the empirical material, through a theoretically-informed analysis, and also to propose theoretical developments directly based on the empirical material. Chapter 8 raises the level of theoretical development, through a greater abstraction from the particulars of the case, and proposes several developments to Clegg's framework (section 8.1). In addition, section 8.2 draws on insights from ANT and from Clegg's framework to propose an ANT-inspired, OIE model of rule-based action, whose original macro-structure was based on the OIE model of Burns and Scapens (2000).

However, before proceeding to the discussion of the empirical material, the design of this research needs to be explained and justified. That is the goal of chapter 4, which now follows.

CHAPTER 4 - RESEARCH DESIGN

4.0 INTRODUCTION AND OVERVIEW

Research design should be a primary concern from the early stages of the research process. This chapter analyses various assumptions, decisions and restrictions of the research design process. This reflection conveys how the research process unfolded and allows evaluating the adequateness of the various dimensions and stages of research design and execution.

The first section characterises the *emergent* nature of the followed research strategy, as well as the most fundamental components of such strategy. This emergent strategy combines a mix of: 1) consistent fundamental assumptions and approaches and 2) flexible adjustments as the research process evolves (as regards the theoretical and empirical foci and more detailed aspects of the research process). The most fundamental components of this strategy are made explicit: the basic ontological and epistemological assumptions; the initial choices regarding research topics, theoretical lenses, methodology and method (including the justification of the case study method); and the emergent changes to these initial choices, and how these changes affected the overall research design.

The second section provides more detailed information about the case study. In addition to the discussion of the organisational scope, considerable attention is devoted to the (shifting) definition of the temporal scope of the research (in terms of both the fieldwork and the empirical referent). The various techniques deployed to generate case information are then presented, with a particular concern to discuss the concept of data

triangulation (and its limitations). Finally, the techniques deployed to analyse the case information are discussed.

4.1 FUNDAMENTAL ASSUMPTIONS AND CHOICES IN RESEARCH DESIGN

4.1.1 INTRODUCTION

Research design can be considered as an encompassing research strategy. Research design should be a holistic and iterative process, combining fundamental aspects (such as the researcher's core assumptions) with more detailed aspects (related with the actual research topic, methods and techniques).

Research design, as a strategy, may not be conceived in detail at the onset and then enacted precisely as initially conceived. The strategy literature provides useful insights in this respect. The strategy literature has long identified the dichotomy between deliberate and emergent strategies and the continuum between them (Nixon, 2006). In a broad brush description, *deliberate* strategies are more suited to well-known and stable environments, whereas *emergent* strategies provide the flexibility required in less known or shifting environments.

The issue of flexibility is not equally applicable to all stages of the research design process. Typically, initial stages of research design consist mainly of reflecting and making explicit reference to fundamental, broad assumptions of the researcher (more than *choosing* between a range of alternatives strictly related with the research process). This is the case of the researcher's ontological and epistemological assumptions. Since this part of research design consists more of making assumptions

explicit, rather than making choices, the issue of research design flexibility is not much applicable - unless the research process had actually changed the researcher's assumptions. Instead, this part of research design should lay the foundations for later stages, which are focused on choices. In those later stages, research design is mostly about making theoretically consistent choices to achieve research objectives. Here, the extent of research design flexibility, as strategic flexibility, is pertinent.

In a research context, a deliberate research strategy is suitable when the empirical referent and environment, the research topic and the theoretical framework can be defined in advance with certainty and in a detailed way. When the certainty and detail of the characterisation of one, some or all of these aspects decrease, then the adoption of features of an emergent research strategy is increasingly justified, recommended and even indispensable. An emergent research strategy provides the flexibility to adjust and/or sharpen the research foci and processes as the investigation evolves. And the need for flexibility, in multiple research aspects, may derive not only from factors essentially related with the empirical setting (Otley and Berry, 1994) but also from factors essentially related with the *researcher: the researcher's* knowledge about the empirical setting; *the researcher's* adopted research topic; and *the researcher's* adopted theoretical framework (Humphrey and Scapens, 1996).

The next subsections reflect these two stages of research design. The next subsection makes explicit the researcher's ontological and epistemological assumptions. The researcher's fundamental assumptions remained stable throughout the research process. However, an increased exposure to the literature and the empirical field created awareness of new theories, concepts and issues. Some of those theories, concepts and issues were considered to be relevant. Therefore, they were adopted and became part of

the way the researcher sees the world, knowledge and the processes to develop knowledge about such world. The following subsection discusses initial choices regarding the research topic, theoretical framework, methodology and method, and the flexibility of the endorsed naturalistic approach, and the adopted flexibility in this research stage.

4.1.2 ONTOLOGY AND EPISTEMOLOGY – MAKING ASSUMPTIONS EXPLICIT

Acknowledging and substantiating the researcher's assumptions is an “intellectual duty of all academic researchers” (Hopper and Powell, 1985, p. 456). Such is the objective of this subsection. The inception of this research was shaped by the researcher's initial beliefs and assumptions about the world, the kinds of knowledge about that world and individuals' freedom vis-à-vis external factors. These assumptions correspond to the researcher's assumptions about *ontology* (the nature of the world, in general, and the research phenomena, in particular), *epistemology* (the kind of knowledge about the world) and *human nature*. A logically highly related aspect concerns the broad means to gain such knowledge, within the context of a PhD thesis – i.e., the adopted *methodology*. Rather than broad assumptions about the world or about knowledge, methodology refers to the research process and its main characteristics, and it is analysed in the next subsection in more detail.

As many authors have pointed out (e.g., Burrell and Morgan, 1979; Hopper and Powell, 1985; Ryan *et al.*, 2002; Tomkins and Groves, 1983; Vieira, 2009), ontology, epistemology and methodology should be related as a cascade: the researcher's ontological assumptions should affect the endorsed epistemological perspectives, which in turn should shape the adopted methodological approaches. In turn, the beliefs about human nature should also be consistent with the other three dimensions. In a classical

and highly influential work, Burrell and Morgan (1979) collapsed these dimensions into an aggregating dimension about the nature of social science, which is a continuum between objectivism and subjectivism.

Objectivism adopts a realist view of the world (ontology), considering that the social world exists separately from individuals' perception of it and resembles the natural world (see also Archer, 1998a). Accordingly, objectivism is associated with a positivistic approach to science (epistemology), based on a search of clear patterns and relations and ultimately leading to knowledge accumulation. Objectivism also considers that individuals' actions are determined by external forces (human nature) and proposes the adoption of the scientific methodology to the social world, based on systematic development and testing of hypotheses. On the other hand, *subjectivism* views the social world mostly as concepts and labels created by individuals to structure reality. The epistemological perspective contrasts to the positivistic, rejecting the possibility to develop objective, generalisable, cumulative knowledge and emphasising the importance of direct experience and interpretation (rather than mere observation) to acquire knowledge. Human nature is considered to be voluntaristic, reflecting a belief in individuals' free will. Finally, methodologically, subjectivism privileges ideographic inquiry and hermeneutics, to understand and explore concepts and subjective experiences in individuals' minds.

Ontological assumptions were shaped by the researcher's background as a student, practitioner and academic (and, it should be added, as a human being in general). The researcher's background made him consider that organisations, their members, their multiple and interacting influencing factors, and deployed techniques, structures, strategies and options, are above all social phenomena, within the realm of

the social world. As such, the researcher's broad interest, at the outset of his PhD studies, on management accounting and control (MAC) and information systems was framed by the assumption that they are not mere techniques, detached from the concrete organisations in which they are, or may be, adopted. 'Technical' features such as MAC and information systems are social phenomena, a part of the social realm, rather than strictly technical features (let alone natural phenomena). Moreover, and importantly, those 'technical' phenomena emerge, operate and become meaningful through their inclusion in socio-technical relations, within heterogeneous socio-technical networks, and are therefore dependent of the idiosyncratic contexts of particular empirical settings.

Social phenomena are different from natural phenomena. Social phenomena are less repeatable, less directly observable and uniform and there is greater difficulty in isolating the influence of individual factors (Wahyudi, 2004, based on Cohen, 1953). Social systems are holistic, they have "a characteristic wholeness or integrity" (Scapens, 1990, p. 271), in line with the institutional concept of totality (Seo and Creed, 2002) and the Actor-Network Theory concept of network (e.g., Callon, 1986; Latour, 1987), as described in the previous chapters.

These characteristics of social phenomena are in line with the broader assumption that (social) reality is socially constructed. In line with Ryan *et al.*' (2002) clarification about a usual sense of "social construction of reality", this term is here used to encompass all "subjectivist approaches, to distinguish them from the assumption of an independent reality which is assumed by the more objectivist approaches" (p. 38). This consideration brings about the issue of epistemology.

Epistemology, the kind of knowledge about the social world, was considered to rely on the researcher's *interpretation* of the social world and phenomena, rather than on direct observation (e.g., Hopper and Powell, 1985). The researcher and his practices, experiences and reflections were considered to be an important part of the way knowledge and understanding of the world is developed, and the kind of knowledge that can be gained. Knowledge was then regarded as having an important *personal nature*.

This epistemological perspective is more consistent with the ontological assumptions endorsed above and the mainly *subjectivist* approach to social sciences. The ontological assumption about a *holistic world* must be reflected on a *holistic epistemology*, opposite to the ambition to reduce complexity through reductionism, by a focus on, and knowledge about, separate and unrelated individual parts. Resuming Scapens' (1990) above quote that "[t]he holistic approach is based on the belief that social systems develop a characteristic wholeness or integrity", Scapens (1990, p. 271) concluded that "it is inappropriate to study their individual parts taken out of context". As such, a holistic epistemology advises *against* the testing of individual hypotheses in a pursuit to uncover "laws capable of generalisation" (p. 253) hypothetically underlying an objective reality, totally independent from the researcher.

Finally, a *processual* conception of organisations was adopted. This processual conception has, indeed, both ontological and epistemological dimensions. It conceives organisations as permanently 'in process', in a permanent state of becoming (Benson, 1977; Burns and Scapens, 2000; Seo and Creed, 2002), rather than as a sequence of 'states' at given (and isolated) points in time. In addition, organisational processes are continuous and cumulative; therefore, researching any particular interval of time should

consider the antecedent and the posterior periods¹. This processual conception places a particular emphasis on the dimension of *time*, given the dynamic, rather than static, view of organisations, and is particularly interested in long-term processes.

Processualist Andrew Pettigrew considered that research should be concerned about “catching reality in flight, and in studying long-term processes in their contexts, a return to embeddedness as a principle of method” (Pettigrew, 1995, p. 92). In other words, the ontological and epistemological assumptions should have consequences as regards the research methodology. The attention therefore now turns to methodological aspects of research, considering the research questions and theoretical framework adopted at the investigation outset.

4.1.3 INITIAL CHOICES OF TOPICS, THEORIES, METHODOLOGY AND METHOD – AND THE ROLE OF FLEXIBILITY

Methodology is frequently discussed in the context of the acknowledgement of ontological and epistemological assumptions. However, the discussion of methodology becomes particularly insightful when it is articulated with the theoretical questions addressed in a particular research and the iterations between methodology and research questions. In turn, focusing on such articulation and iterations highlights the issue of the *flexibility* of the research process.

The ontological and epistemological holistic assumptions required a methodological approach based on a close contact with the empirical domain. In turn, the researcher’s interest on the broad topics of MAC and information systems was oriented towards more specific topics that considered the organisational context in

¹ Considering posterior periods is, naturally, only possible when the fieldwork includes, or is posterior to, such periods.

which these techniques were used. This led to the adoption of a naturalistic methodology and the choice of the case study method. This subsection discusses these initial choices and analyses the role of flexibility in the research process.

4.1.3.1 Initial research topic, theoretical framework and methodological choices

The initial research topic

The initial research topic was to explore, in a processual way, the long-term interactions between an Enterprise Resource Planning (ERP) system, the consultants that implemented it and management accounting and control, in a particular organisation. This initial research topic shaped the initial and fundamental research design options and emerged from the confluence of several empirical domains and streams of literature - reflecting the assumptions of holistic ontology and epistemology.

There is significant literature on the individual topics of *ERP systems* and *management accounting and control*. However, less literature relates both topics, although there has been an increasing recognition of the relevance of such intersection (e.g., Booth *et al.*, 2000; Dechow and Mouritsen, 2005; Dillard *et al.*, 2005; Granlund and Malmi, 2002; Hyvönen, 2003; Ribeiro and Oliveira, 2009; Scapens *et al.*, 1998; Wieder *et al.*, 2000), in particular within an organisational change and processual perspective (Caglio, 2003; Chapman, 2005; Cullen *et al.*, 2007; Dechow and Mouritsen, 2005; Lodh and Gaffikin, 2003; Quattrone and Hopper, 2005; Rom and Rohde, 2006; Scapens and Jazayeri, 2003).

In addition, the topic of *consultancy* has only recently been attracting more significant attention in academic research (e.g., Pellegrinelli, 2002, mentioning the early

work of Lippit and Lippit, 1978; Sturdy *et al.*, 2009; the several chapters in Clark and Fincham, 2002 and in Buono, 2004a and the several papers in the special issue introduced by Sturdy *et al.*, 2009), in various perspectives (e.g., the functionalist and critical perspectives - Hellgren *et al.*, 2004). Research has been emerging on the role of consultancy in information technology in general (e.g., Bloomfield and Danieli, 1995; Swanson, 2010) and in the specific topic of ERPs (e.g., Benders *et al.*, 2006; Boonstra, 2006; Ko *et al.*, 2005; Koh *et al.*, 2009), particularly in the professional or popular literature (e.g., several contributions in Fahy, 2001). In fact, there is agreement that consultants are typically unavoidable, in various degrees and areas, to implement ERPs in organisations. When such role is considered in academic research, and particularly within accounting academic research, it is mostly merely another variable, a part of the context or only briefly mentioned. Some examples are Caglio (2003), Dechow and Mouritsen (2005) and Scapens and Jazayeri (2003); research like Soin *et al.* (2002) and Lodh and Gaffikin (2003) devoted greater attention to consultancy, but still without making consultancy a major, singled-out concern. Other authors analysed the ‘consulting genre’ literature on management accounting, but not consultancy *per se* (Lukka and Granlund, 2002).

Additionally, although the three topics (ERPs, consultancy and MAC) may be analysed in the same work, the intersection between the three has not been a major focus (e.g., Coad and Herbert, 2009; Hyvönen *et al.*, 2008; Lodh and Gaffikin, 2003).

Furthermore, the popular and professional literature on ERP systems suggested that there was a *long time lag* between the introduction of an ERP system and the production of organisational effects, and some academic research speculated that such factor might explain the merely ‘*moderate impacts*’ of ERPs in management accounting

(Granlund and Malmi, 2002; also Rom and Rohde, 2006; Scapens and Jazayeri, 2003). In fact, the short time period considered in some studies has been acknowledged as a potentially limitative factor; Rikhardsson and Kræmmergaard's (2006) consideration of this long-term effect is a notable exception. Therefore, considering an extended time horizon seemed to be a particular relevant, and under-researched, setting.

The initial theoretical framework

The three topics (ERP systems, consultancy and MAC) were loosely tied, based on the institutional theory perspective focusing on the organisational level: Old-Institutional Economics (OIE) (see chapter 2). OIE has already been used, in a processual perspective, to make sense of the relations between ERP systems and organisational change (e.g., management accounting change) (e.g., Quinn, 2010; Scapens and Jazayeri, 2003). In an OIE perspective, the intervention of consultants may be conceived as an external influence upon a particular organisation. However, it was admitted that such characterisation could be considerably deepened (e.g., see Granlund and Lukka, 1998 for a relevant New Institutional Sociology perspective).

Finally, within the organisational change literature, there were claims that research had privileged the focus on pre-conditions and outcomes, neglecting the analysis of how and why organisational characteristics change over time. Therefore, there were calls for research on the *processes* through which organisations *became* what they are, i.e., adopting a *processual* perspective (Burns and Scapens, 2000; Van de Ven and Huber, 1995).

The adoption of a *processual* perspective could allow interpreting and explaining the detailed interactions between the multitude of factors and actors which

previous research has shown to have a role in the implementation of ERP and MAC. In particular, this in-depth, processual perspective is consistent with the OIE approach to research organisational change, and it might be particularly useful to explore the controversial issue of *direction of causality* between information systems and organisational characteristics (e.g., Markus and Robey, 1988 – updated by Paré *et al.*, 2008; Granlund and Mouritsen, 2003; Volkoff *et al.*, 2007). As Markus and Robey argued, such type of research called for a longitudinal approach (see various contributions in Huber and Van de Ven, 1995).

For the researcher to gain holistic insights and develop interpretations with a processual perspective about such multiple, simultaneously interacting factors and processes, situating them in their particular organisational and even social contexts, required an adequate research approach. I.e., the research approach (the *methodology*) had to be ontologically and epistemologically consistent and it had to exhibit potential to address the research question. This is analysed next.

A naturalistic methodology

Such an adequate methodology was the *naturalistic* research approach, also frequently called *interpretive* research² (Ahrens *et al.*, 2008; Berry *et al.*, 2005; Burrell and Morgan, 1979; Kopanaki and Smithson, 2003; Tomkins and Groves, 1983; Wahyudi, 2004; Walsham, 1995a and 1995b). The naturalistic methodology

² Some strands of critical research also share a subjectivist approach. Critical research, in a very simplified way, is particularly characterised by an emancipatory agenda intended to highlight and overcome situations of domination (including ideological) and correct injustice and inequities by radically changing the current *status quo* (Burrell and Morgan, 1979; Chua, 1986; Hopper and Powell, 1985). As Baker and Bettner (1997) put it, “[c]ritical research can also be interpretive, but critical research adopts a particular point of view regarding the research question, whereas interpretive research purports to take a ‘neutral’ stance” (p. 293). However, the same authors pointed out that some critical research endorses objectivist perspectives. Therefore, critical approaches, as a whole, should not be associated with the subjectivist approach, but rather with their change agenda (Berry *et al.*, 2005).

(diametrically opposed to “naturalism”, based on “the importing of natural science presuppositions into the social sciences”, as clarified by Tomkins and Groves, 1983, p. 362) attempts to research the empirical referent in its natural setting, i.e., *in situ*. This methodology attempts to encompass both the interpretations, meanings, perceptions, intentions and behaviour of the individual participants, as well the organisational, social and even physical contexts, in their complex holism³ (see Oliveira *et al.*, 2009; e.g., Ahrens and Mollona, 2007). It is also particularly adequate to understand sequences of events, in a processual way. As such, a naturalistic methodology requires very rich data on the specific phenomena being studied, typically of a *qualitative* nature (Ahrens and Chapman, 2006).

Tomkins and Groves (1983) drew on Blumer (1978) to characterise the methodology of naturalistic research, emphasising the *flexibility* of the approach in both ‘*exploratory*’ and ‘*inspection*’ stages (see Yin, 2009 on the many instances where research flexibility may exist). According to Tomkins and Groves, in the *exploratory* stage, the researcher establishes a close contact with the empirical domain, “[d]eveloping and sharpening his enquiry so that his problem, his directions of inquiry, data, analytical relations and interpretations arise out of, and remain grounded in, the empirical life under study.’ (Blumer, 1978, p. 39) “Exploration” therefore involves

³ Baxter and Chua (2003) considered ‘naturalistic’ research as a particular category of ‘alternative’, non-positivist research. However, the single common trait of naturalistic research that these authors identified was investigating “practice in its ‘everyday’ organisational context” (p. 99). Clearly, this concern is also shared by other ‘alternative’, non-positivistic types of research, including institutional, structuration, Foucauldian and Latourian research – which then added their own distinctive traits and concerns, like the development of general theoretical models. Therefore, it is questionable whether ‘naturalistic’ research should be considered as a distinctive type of research, as the other types of research mentioned above. Rather, it may be argued that naturalistic research, as a separate category in line with Baxter and Chua’s approach, might be defined mainly *by the negative*: highly fragmented, with an absence of shared theoretical topics and lenses and an absence of a concern to develop general theoretical models, and whose only commonality is restricted to the concern with studying practice in its natural setting. As a consequence, and unlike Baxter and Chua (2003), this text uses the concept of ‘naturalistic’ (and ‘interpretive’) in its broader methodological perspective, which is shared by several non-positivistic types of research (Bhimani, 2002).

flexibility and shifting points of observation and lines of inquiry in order to gain a clear *understanding of how to pose the problem, what data are relevant and how to identify significant lines of relationships for closer inspections*” (Tomkins and Groves, 1983, p. 363). Therefore, theoretical flexibility is both potentiated and required in interpretive research, given its “lower levels of prior theorisation”, as Batter and Bettner (1997, p. 296) put it, using Laughlin’s (1995) framework.

A second, ‘*inspection*’ stage follows the exploratory stage. The ‘inspection’ stage “involves a gradual deepening of the enquiry following themes which emerge from flexible, but close, observations of specific decision contexts. As the research intensifies one examines an analytical element of the study from different perspectives checking out, for example, how different people view events which occurred or are occurring and, indeed, gradually deepening one’s understanding of what views each person holds” (emphasis in the original) (Tomkins and Groves, 1983, p. 363).

Consistently with the naturalistic perspective, the initial theoretical topic was relatively broad and the desired empirical setting was only abstractly defined, with no specific organisations in mind. As described below, the implementation strategy was based on obtaining access to a consultancy firm, first, and then to one of its clients, which met the requirements derived from the research topic. It was accepted that, as specific organisations were selected and the empirical setting became clearer, there would be a case for a revision or sharpening of the research topic⁴.

⁴ The lack of knowledge about the empirical setting persisted even when, based on the research topic, two particular organisations (a consultancy firm and one of its clients) were contacted and agreed to participate in the research (this is discussed later in this section). Although they are both well-known companies in Portugal, the researcher had no detailed, in-depth knowledge about them. In line with the naturalistic approach, it was recognised that, as detailed, *case-specific* knowledge was obtained, there

In addition, flexibility in the definition of the theoretical topic might also be needed to deal with pragmatic reasons related with the access to organisations. Access is typically not unlimited, is always precarious and should never be taken-for-granted. Therefore, even after the start of the fieldwork, there is no guarantee that planned or even adopted options (including the theoretical topic) may be kept throughout the fieldwork. As discussed below, denial of access prevented the pursuit of a potential research topic within the case study organisation.

4.1.3.2 The naturalistic approach as an emergent research strategy

The above characterisation of initial research options reveals that an *emergent* research strategy was adopted from the start. Contrastingly, there were only some features of a *deliberate* strategy. In fact, only the adopted, naturalistic methodology was considered to be an aspect unlikely to be revised, since alternative methodologies would probably be inconsistent with the ontological and epistemological assumptions and with the type of adopted research issues.

This last insight requires an acknowledgement. The *flexibility* of an emergent research strategy is *unlikely to be unlimited*. I.e., as a naturalistic methodology is adopted in practice to address a given research topic and as the fieldwork is carried out, the gradually emerging insights and alternative research topics are most likely to be restricted to those which can be elicited by, and addressed by, this particular line of enquiry. As such, the adjustments within a flexible, emergent research strategy are unlikely to imply fundamental shifts in methodology and the kind of research topics.

might be a case to adapt or narrow down the research topic – and this indeed happened, as discussed below.

In summary, conceptualising the research strategy as an emergent strategy was always not only accepted, but also viewed as desirable. March (1987, p. 163) long argued for the benefits to “recognise action as a way of discovering and developing preferences, as well as acting on them”. In line with the Processualist and the Evolutionary perspectives on strategy (Nixon, 2006), the actual strategy emerged gradually through the researcher’s incremental learning about the research context, in a process of “continual nibbling” (Lindblom, 1959, p. 25, cited by Nixon, 2006).

4.1.3.3 The option for the case study method and a preliminary description of the approach to the empirical domain

The choice for the case study method

A naturalistic, interpretive and processual research perspective can be implemented through several research methods to obtain information. Obtaining information should be seen as a process of *generating* information, rather than merely gathering it, given the role of the researcher in the research process. “[D]ata (...) do not sit waiting collection (a practical impossibility given the vastness of MNOs)” (multinational organisations) (Quattrone and Hopper, 2006, p. 221, emphasis removed), as well as the vastness of the time horizons that may be elected, as discussed at the start of next section.

Suitable methods for such naturalistic, interpretive and processual research perspective are predominantly (but not necessarily only) those which deal with qualitative data (Inglis, 2008; Vieira *et al.*, 2009) (cf. Ahrens and Chapman’s (2006) association of the terms ‘qualitative’ with methodology, rather than method). However, a given method may be mobilised either quantitatively or qualitatively and, in addition,

methods are not mutually exclusive (Ahrens and Chapman, 2006; Silverman, 2005; Yin, 2009). Therefore, Denzin and Lincoln (1994) argued that a researcher adopting these perspectives should be a ‘bricoleur’, drawing on the methods perceived to be more adequate to explore the topic under examination. Indeed, authors like Creswell (2003) and Modell (2009 and 2010) strongly recommended the adoption of mixed method approaches.

Analysing the several available research methods is beyond the remit of this work (see, e.g., Silverman, 2005; Vieira *et al.*, 2009; Yin, 2009). The case study method⁵ has been particularly popular among interpretive researchers, as a way to gain an in-depth, holistic knowledge about a particular empirical domain, in its natural (organisational and even social) context (Ribeiro, 2003; Scapens, 1990; Silverman, 2005; Yin, 2009). Such was the aim of the researcher, and the case study method appeared as a suitable method⁶.

Case studies have been classified according to their objectives. Usual taxonomies consider that case studies can be descriptive, illustrative, experimental, exploratory or explanatory (Scapens, 1990; see, e.g., Otley and Berry, 1994 for criticisms and alternatives). In this research, the case was designed to be mainly

⁵ The meaning of ‘case study’ is not consensual and has been described as “fuzzy-edged” (Hammersley and Gomm, 2000, p. 7). Case studies are here considered as a particular way (i.e., a *method*) to generate and analyse information (e.g., Otley and Berry, 1994; Scapens, 1990; Yin, 2009), rather than a *methodology* (e.g., Hussey and Hussey, 1997).

⁶ In early stages of research design, and even in early fieldwork when approaching the consultancy firms, careful consideration was given to alternative methods, such as action-research (Moody and Shanks, 2003), the constructive approach (Kasanen *et al.*, 1993; Labro and Tuomela 2003) and trailing research (Olsen and Lindøe, 2004) (in trailing, research, the evaluator acts as a facilitator in a learning process, focusing on generating dialogues among participants). In particular, these approaches were evaluated considering the possibility of the researcher joining a team of consultants implementing an ERP system. The main objective would be to closely studying accounting in action (more than bringing action to accounting, as encouraged by Labro and Tuomela, 2003). However, such possibility raised a number of practical difficulties and risks (Labro and Tuomela, 2003; Olsen and Lindøe, 2004). Moreover, it might not contribute to the research interest on *long-term* interactions, since the implementation might only be starting and it might take too long (given the time constraints of a PhD) for long-term interactions to emerge. As such, these alternative research methods were abandoned in favour of the case study method.

explanatory, given the ambition to *understand*, in a concrete empirical setting and in a processual way, the long-term interactions between ERPs, the consultants who implemented them and MAC⁷. In line with the endorsed holistic ontology and epistemology, the case study method holistic nature has the potential to “develop a nuanced view of reality and contribute to the effectiveness of theory” (Gil, 2007, p. 997, based on Flyvbjerg, 2001). It attempted “to expand our understanding of the empirical observations by developing theories which explain individual observations in their actual context” (Scapens, 1990, p. 271, emphasis removed).

The research was designed as mainly **inductive** (rather than deductive) to develop a “pattern model of explanation”, providing “empirical explanations of particular occurrences” (Scapens, 1990, p. 271-2). Therefore, there would be no aim to develop statistical generalisations, which would be inconsistent with the adopted ontological and epistemological assumptions.

The choice for a single case study

The initial research question, in particular its processual nature, and the underlying ontological and epistemological assumptions and the need to achieve depth of analysis, promoted the option for carrying out a *single* case study (rather than multiple case studies; but see right below the consideration given to this alternative). In addition, it would be a **holistic single case** (Yin, 2009), since there would be only *one unit of analysis*: the *case organisation* (the organisation where the consultants had

⁷ Considering the often fuzzy frontiers between different types of case studies, it should be recognised that a relevant descriptive component has to underlie an explanatory case study. However, the classification of a given study should consider its *main* objective, which in this study is an *explanatory* objective.

implemented the ERP system and where potential interactions with MAC might have occurred).

The (single) unit of analysis (the case organisation) was intentionally *broad*. A narrower focus on a particular area of the organisation (e.g., the management control department at the headquarters) was considered inappropriate for two reasons. First, it was anticipated that a high importance should be given to two areas: IT and MAC. Second, and more importantly, increasing literature depicts management accounting - and, particularly, management control - as a dispersed activity, rather than as the activities performed by management accountants. Burns and Baldvinsdottir's (2005) and Caglio's (2003) notion of hybrid accountants and Dechow and Mouritsen's (2005) notion of management control as a collective affair, performed by multiple actors in addition to management accountants, both support the option that electing a particular functional department as a main unit of analysis would be inappropriate. In addition, both the production and the usage of management accounting information were encompassed by the research question, again advising against a restrictive definition of the unit of analysis. Furthermore, actors in different geographical locations (e.g., headquarters and subsidiaries, should they exist) were also considered relevant. Finally, it was considered that various hierarchical levels should be considered. Therefore, it was decided that the (single) unit of analysis should be broad and encompassing the entire organisation⁸.

The high emphasis on the role of another organisation (the consultancy firm and their consultants) does *not* turn the study into an *embedded*, single-case study (Yin,

⁸ This option does not, obviously, require that every single part of the organisation must be studied, in particular if the case organisation is large. It merely intends to avoid setting, *a priori*, inappropriate and restrictive boundaries.

2009)⁹. However, the option of carrying out multiple case studies was considered and it was incorporated into the research design, as analysed next.

Keeping the option of expanding to multiple case studies

At the start of the empirical research, and notwithstanding the above choice of carrying out a single case study, it was decided that the research design should provide for the *option* of carrying out holistic, *multiple* case studies (Yin, 2009), focusing on multiple client organisations (the case study settings) of the same consultancy firm¹⁰.

Multiple case studies have particular potentialities, in particular making cross-case comparisons, either to replicate the theoretical explanations (when cases exhibit similarities) or to “extend the theory to a wider set of circumstances” (when cases are very dissimilar) (Scapens, 1990, p. 273). The endorsed holistic perspective tends to be suspicious as regards the notion of “similar” firms. On the contrary, it tends to highlight and explore the differences between the cases, and hence view the cases as *essentially dissimilar*.

⁹ The case would *not* be an *embedded* case study since the high emphasis on the role of consultancy does not make the consultancy firm a *unit of analysis* of its own, in addition (and in parallel) with the client organisation. Therefore, there would be no *multiple units of analysis* (within a given case) – the characteristic of *embedded* (single) case studies (Yin, 2009).

¹⁰ Some details of the case study are now anticipated, to allow a methodological discussion. Although the following chapter separately presents three innovations in three sections, they should *not* be considered as separate, multiple case studies, but rather as *related parts* of a *single* case study. Such consideration is supported by three reasons: methodological; empirical and theoretical. First, the methodological reason: the fieldwork and the development of interpretations and theoretical hypotheses was a single, global research process; interviews typically encompassed topics relevant to explore various innovations, and interviewees systematically related various innovations. Second, the empirical reason: the innovations were, indeed, tightly related. Together, they are components of a wider organisational change process. A case study focusing on only one of those innovations, excluding the others, would be incomplete; at least, the inclusion of some references to the other innovations would be inevitable. While the option of focusing on particular innovations, separately, may be an option in the write-up of individual papers, the chosen option of writing a monograph allowed, and recommended, an integrated study of the various innovations. Third, the theoretical reason: the theoretical conclusions are also strongly related and the theoretical insights regarding the various innovations strongly support and reinforce each other. Importantly, the *collective* effect of various innovations was found to be crucial. Therefore, it was considered that a combined analysis of the various innovations provided a more cogent account and strengthened the validity of the final contributions – of a *single* case study.

This alternative research design, based on multiple case studies, would therefore be in line with the “pattern model of explanation” (Scapens, 1990, p. 271) mentioned above and contribute towards a wider research programme based on “theoretical generalisability” (p. 270). Indeed, such wider objectives can be aimed through the comparison of various case studies, carried out independently; in this situation, there would be the particular advantage that the research design and topic (and the researcher himself!) would be the same across the various cases¹¹.

However, multiple case studies were not considered to be either necessary or superior to single case studies, given the adopted holistic type of research (Scapens, 1990). In fact, this alternative might even create tensions and difficulties, given the adopted ontological and epistemological assumptions, in particular as regards the endorsed ‘naturalistic’ emphasis on the uniqueness of each setting in its holistic complexity¹². Finally, and importantly, even key methodologists who tend to privilege multiple case studies (e.g., Yin, 2009) acknowledge that single case studies are adequate to address a particular purpose, which is present in this study: to gain a temporal perspective, and understand “how certain conditions change over time” (p. 49). Therefore, planning for the option to later expand the number of empirical sites was not

¹¹ This case study design corresponds mostly to a replication logic (e.g., Scapens, 1990; Yin, 2009). Such logic may be faced with some suspicion by ‘naturalistic’ researchers (considering the highly restricted sense of ‘naturalistic’ research adopted by Baxter and Chua, 2003, as discussed above). However, when the topics were common across such ‘naturalistic’ studies, some connections between them could be identified (Oliveira *et al.*, 2009). As Humphrey and Scapens (1994, p. 96) noted, based on Noblit and Hare (1988), “[c]ross-case comparisons, while losing some of the contexts of the individual cases, can provide richer interpretations of the research issues through the particular synthesis which the researcher develops to encompass the cases under consideration.”

¹² An additional challenge would lie ahead during the execution of multiple case studies: there would be the serious possibility that the unit of analysis might end up, perhaps inadvertently and gradually, shift from the client organisation to the consultancy firm (which would be common across the multiple case studies). In other words, research could shift towards a case study about the consulting organisation which implements the ERPs, and away from the client organisations where interactions involving management accounting might occur. Such eventual shift would require a new reflection about all aspects of research design (Yin, 2009).

motivated by a hypothetical consideration that the single case study alternative is, in abstract terms, unsatisfactory to address the research question.

Therefore, carrying out multiple case studies was merely an open possibility - a 'real option' in this research project (Gil, 2007). The exercise of this real option (i.e., to initiate a second case study) would depend upon an ulterior evaluation of the development of the first case study (i.e., the depth of analysis achieved in the first case study and the theoretical contribution emerging from it) and of the available resources (in particular, time).

The consideration of the possibility to carry out multiple case studies had an important consequence as regards the way the contacts with the empirical field were initiated. Cross-case comparison might be facilitated should the same consultancy firm be the same in all the case studies, since it would introduce an element of (relative) commonality across cases¹³. This option made it advisable to approach *large* consulting firms¹⁴, with potentially various clients which both suited the desired profile and were willing to participate in the research.

¹³ The option of the presence of the same consultancy firm across the various cases would have its drawbacks. First, this option would have the cost of losing insights about possible differences among different consultancy firms. In addition, and somewhat paradoxically, it would still not guarantee that the consultancy 'variable' would be common in the various cases, even considering the widely depicted tendency of consultancy firms to adopt standard approaches across the clients (e.g., Fincham and Clark, 2002 and various contributions in the same book). In fact, a holistic research approach rejects the concept of a 'variable', which might be considered as constant as in a mathematical equation. Instead, a holistic approach considers that there would be idiosyncrasy of consulting approaches across the cases, due to a wide range of possible (and even unpredictable) factors – among which, the probable diversity of individual consultants involved.

¹⁴ The option of targeting only *large* consultancy firms does not create any particular restriction *in addition* to the one implied by choosing to research client organisations of *one single* consultancy firm: the research would focus on processes and clients of *that* single consultancy firm, regardless of its size.

A preliminary description of the approach to the empirical domain and the selection of a consultancy firm and one of its clients

In line with the above options about the case study method, the researcher approached the empirical domain, in late 2004, by first establishing contacts with two major consultancy firms with a large experience in implementing ERP systems in Portugal (the researcher's country of origin). One consultancy firm agreed to participate and suggested a client which, in a preliminary analysis, appeared to fit the research design requirements: having implemented an ERP in the financial area for a significant number of years. In fact, this client had started implementing the ERP market leader, SAP, in the accounting area in 1999, with SAP Financials (SAP FI). This client had production facilities in several countries, but its headquarters were in Portugal. The client was contacted and agreed to participate in early 2005 (the next section provides more details on the processes of approaching the empirical domain).

Therefore, the fieldwork started under the primary option of conducting a *single* case study. However, the large client portfolio of the consultancy firm provided positive expectations that it could be possible to move to a *multiple* case study design, later, should such change be considered beneficial.

The longitudinal and retrospective nature of the case study

'Processual research' and 'longitudinal research' are often related concepts, but they are quite distinct. When 'processual research' is discussed in the literature, there is a systematic, and typically bidirectional, association, with 'longitudinal research'. The two terms are so often associated, that sometimes they are treated as synonyms. However, Van de Ven and Huber (1995) ruled out such potential confusion, by

clarifying their focus “on longitudinal field research methods for studying processes of organizational change” (p. vii). I.e., on one hand, the *processual* dimension is a perspective of the empirical domain analysed in a certain research: the focus is on *processes* (in this case, processes of change). On the other hand, the *longitudinal* dimension refers to a characteristic of the research methodology: it involves prolonged contact with the empirical domain. This is consistent with a dictionary definition of the adjective ‘longitudinal’: “involving information about an individual or group *gathered* over a prolonged period” (Concise Oxford Dictionary, emphasis added).

A processual approach can be achieved by other means than only the longitudinal perspective. A *retrospective* perspective, analysing past events, can also be fruitful. The longitudinal and the retrospective perspectives are discussed next, with the particular concern of highlighting the importance of a retrospective perspective - in virtually all cases and in this one in particular.

First, a retrospective perspective is necessary when the phenomenon being studied occurred before the fieldwork started or when the researcher was temporarily away from the field (e.g., Glick *et al.*, 1990). Another case is when the researcher was in other areas of the field *other than* the relevant one(s) as regards the phenomenon at stake. However, the important role of a retrospective component, even in longitudinal studies, is more complex and deserves a more detailed analysis.

Conducting a case study in a *strictly* longitudinal perspective, *exclusively* based on *real time* ‘observation’ and interpretation, in which retrospective interpretation is non-existent, is virtually impossible – and even undesirable. The absence of a retrospective component could only be conceived in a hypothetical situation where the

researcher had been involved ‘from the start’ – a hypotheses which poses the additional, and virtually insolvable, difficulty of determining ‘the start’, in particular in a processual perspective. Even if the phenomenon under study is, e.g., a particular project, with reasonably defined temporal boundaries, it is most unlikely – and even undesirable – that a deep understanding of all aspects of that project can be made only based on information collected ‘as it was happening’. This would correspond to ignoring valuable historical and contextual information, but which referred to events which did not meet the ‘requirement’ of simultaneity with the researcher’s presence. E.g., it would imply ignoring information about previous projects, somehow related to the project under analysis, even including previously failed and aborted projects. More generally, it would require neglecting the background of this project, the history of the individual and collective actors involved – including the organisation at stake, and even other related organisations or institutional fields, as implied by the holistic ontological assumptions.

Only in very particular, and probably exceptional, circumstances may a retrospective analysis be argued *not* to exist. Eventually, such a possibility may be considered in some cases of Insider Action Research or self-ethnography¹⁵. However, the researcher would need to have been involved with the studied organisation as an employee, manager or other relevant position for a sufficiently long time, in order to have acquired first-hand, direct knowledge about the relevant historical and

¹⁵ Insider Action Research exists when an organisational member, “already immersed in the organization and having a pre-understanding from being an actor in the processes being studied”, also carries out research (Coghlan, 2001, p. 49; see also Brannick and Coghlan, 2007). Self-ethnography is “an approach to study (...) settings which the researcher is highly familiar with, and has direct access to” (Alvesson, 2003, p. 167), by being “an active participant, more or less on equal terms with other participants. The researcher then works and/or lives in the setting and then uses the experiences, knowledge and access to empirical material for research purposes. This research is, however, not a major preoccupation, apart from at a particular time when the empirical material is targeted for close scrutiny and writing. The person is thus not an ethnographer in the sense of a professional stranger” Alvesson (2003) therefore recommends the label of “observing participant” (rather than “participant observation”), since “[p]articipation comes first and is only occasionally complemented with observation” (p. 174).

organisational context (naturally, the definition of such ‘sufficient’ period cannot be defined in abstract and general terms). Another eventual possibility might occur when researchers have kept contact with the organisation for many years. But even in those rare and difficult to achieve situations, the researchers would unlikely have a *permanent* contact with the organisation. Rather, the most likely situation would be to keep a regular, yet sporadic contact, which would allow the researchers to ‘catch up’ with the developments within the organisation since the last interaction. This would clearly have a retrospective component, as well, as regards the periods during which the researchers were absent (e.g., Rowe *et al.*, 2008).

As a conclusion, virtually all longitudinal case study research has, *de facto*, a retrospective component. Case study research needs to rely on a characterisation, or at least an awareness, of the past of the organisation and its context before the start of the fieldwork (Marshall and Rossman, 1995). Such retrospective perspective should be acknowledged when presenting the research. However, such acknowledgment is the exception, rather than the rule (some exceptions are Boonstra, 2006; Covalleski and Dirsmith, 1988, who clearly titled their field study as “historically informed”; Luotonen, 2009; and Kober *et al.*, 2007).

It may be speculated that two reasons for an infrequent acknowledgment of a retrospective component in case studies are the difficulties and limitations attributed to studying past events, and the corresponding appeal and advantages of studying events in ‘real time’ (these are analysed below).

However, the usual value and objective of researching organisational phenomena as they are occurring, even in processual studies, has been interestingly

questioned by Quattrone and Hopper (2006) and Busco *et al.* (2007). They noted that case studies utilising Structuration Theory (e.g., OIE, as analysed in chapter 2) “are often longitudinal to demonstrate how IT evolves *over time* (e.g., Burns & Scapens, 2000)”, i.e., assuming “a linearity of time and evolution” (Quattrone and Hopper, p. 218, 222, emphasis in the original). However, IT (or another organisational phenomenon) “is not necessarily a single, stable entity at a point of time. (...) [It] may not smoothly evolve over time (or space) but can acquire different forms simultaneously in different parts” of an organisation (p. 218). Referring to their own study, Quattrone and Hopper noted that “[t]he passage of time was important for the researchers to gain an understanding” of the complexities of the empirical field. “To understand what counts, what matters (...) is messy and time consuming. Here, but only here, time matters” (p. 222).

In fact, *time is not linear*, neither as regards organisational changes (i.e., in an ontological perspective) nor as regards studying them (i.e., in an epistemological perspective). Certain periods may be characterised by dramatic changes, and a short fieldwork might (in this perspective) provide highly relevant empirical information; the contrary may also occur, and a prolonged fieldwork would not capture insights on significant changes. In addition, for several reasons related with the research process itself (e.g., frequency of opportunities to generate data and relevance of such data), some fieldwork periods may provide important empirical insights, while others may be less fruitful. For all these reasons, as Quattrone and Hopper argued, the outcome of the time spent in fieldwork is not linear.

In spite of these caveats, a *relatively lengthy fieldwork* is typically recommendable. In addition to the most commonly indicated reason that studying

lengthy change processes require a lengthy presence in the field doing ‘real time’ research, three other main reasons recommend it. First, even a ‘real time’ fieldwork on change processes when there seems to be no change occurring may still provide highly relevant information as regards the other face of change: *stability*, a traditionally less focused phenomenon but which has recently attracted much attention (see sections 2.1 and 2.4). It can even be argued that detecting and researching stability may require a lengthier fieldwork, when compared to change: in fact, if change is significant and quick, a short period may suffice to research it, even if only superficially; however, a claim of stability is likely to raise serious reserves if it only refers to a reduced empiric time frame. Second, the researcher may not *a priori* know *when* the change processes will occur, in which areas and with what strength and visibility; should longitudinal, ‘real time’ enquiry be desired, the researcher’s presence in the empirical field may therefore be necessary to attempt to detect and capture the moment and places in which change processes emerge¹⁶. Third, and regardless of the conceptions of time, there is total consensus in acknowledging, along with Quattrone and Hopper (2006), that case studies are indeed time-consuming to gain an in-depth, holistic understanding of the empirical domain (Scapens, 1990; Silverman, 2005; Yin, 2009). Therefore, even if only due to epistemological reasons (the researcher’s cognition limitations), there is a case for recommending a relatively lengthy fieldwork.

Finally, the retrospective component was, very simply, indispensable for *this* particular research. The research topic clearly emphasised *long term* interactions; whereas this long term focus did not define, in itself, a particular period, it would be likely that a ‘complete’ change process, including long term interactions, would extend

¹⁶ Naturally, the presence of the researcher does not guarantee success. The uncertainty about the time and place of occurrence of key events is actually an important justification for the existence of a retrospective component, as argued above (Glick *et al.*, 1990).

beyond the period typically available to carry out a fieldwork within the context of a PhD. Indeed, this perception caused that one of the criteria to select an ‘appropriate’ case organisation was already having implemented the ERP system, to allow for ‘long term’ interactions to have already started to unfold. The researcher would therefore catch up with these interactions as they continued to unfold. Consequently, *combining ‘real time’ observation and interpretation with retrospective analysis* was considered a very appropriate approach to address the processual, *long-term* concerns.

Summary of the major characteristics of the case study

This research had an *explanatory objective*, adopting a *processual perspective*. The need to have an in-depth knowledge about the actual holistic empirical setting promoted designing the research, primarily, as a *holistic single case study*; however, research design incorporated the concern to facilitate an eventual later expansion to holistic, *multiple* case studies. The research was also designed to be both *longitudinal (real time)* and also have a clear *retrospective* component (the latter intended to contextualise on-going change processes and also to research events prior to the start of the field study), in particular considering the objective to research *long-term* interactions.

4.1.3.4 The naturalistic approach and flexibility during fieldwork: new emergent research topic, theoretical framework and research approach

The fieldwork started off after the definition of a research topic and a theoretical background, as typically recommended by case study methodologists (e.g., Yin, 2009). However, Cadili and Whitley’s (2005) description of their limited knowledge about the

details of their particular empirical setting is largely applicable to this research project¹⁷. They were aware that a more detailed knowledge might call for a reflection about adjusting research design options, including the research topic and the theoretical framework; so was the researcher of this thesis.

The acceptance of a possible revision of the *research topic*, typical during the ‘exploration’ stage of naturalistic research (see above), was in line with the dilemmas faced by naturalistic¹⁸ researcher Thomas Ahrens: “What I find most difficult when drafting a new interpretive accounting paper is having to choose, from all the interesting things I found out about accounting practice, those which are really interesting for the readership, the ones that allow me to shed light on presumed knowledge or existing puzzles” (Ahrens *et al.*, 2008, p. 853-4).

In turn, the acceptance of a possible revision of the *theoretical framework* derived from two factors. First, from the possibility of revising the research *topic*: it is plausible that the adoption of a new research topic may call for the adoption of a new theoretical framework. Second, from the aim of achieving a better explanation of the empirical setting, as Humphrey and Scapens (1996) put it: “[a]ny apparent coherence achieved by using a predetermined theory as a lens through which to interpret a case could well be gained at the expense of ignoring organisational dynamics and tensions which do not readily fit the chosen theory. The researcher may need to refocus, regrind

¹⁷ Cadili and Whitley (2005, p. 175) thus reflected: “A *priori* knowledge of the case was limited at the outset to a general idea that the accounting department being studied had recently initiated a project to introduce a hosted SAP system. Although this general information enabled the preparation of some initial open-ended questions, the boundaries of the phenomenon remained relatively unclear. That is, the researcher entered the field with a broad area of study but with no specific research question and so hoped to narrow the focus after conducting the initial interviews and observations. Such uncertainty is not uncommon before data collection has commenced (Strauss and Corbin, 1998, p. 38) and case analysis is a valuable means to develop and refine concepts for further study (Cavaye, 1996, p. 229).”

¹⁸ Following Baxter and Chua’s (2003) classification of Ahrens (1997). A wider conceptualisation of naturalistic research (when compared with Baxter and Chua’s restrictive conceptualisation, as suggested above in this chapter) would reinforce the classification of Thomas Ahrens as a naturalistic researcher (see, e.g., Ahrens *et al.*, 2007).

or reshape the chosen lens and even combine it with other lenses in order to secure a coherent theoretical framework for the specific case study” (p. 91).

Finally, it was plausible that changes in the research topic and/or theoretical framework might call for a revision of the broader research approach and, more generally, the overall research design. As Yin (2009) cautioned, “if the relevant research questions really do change, you should simply start over again, with a new research design” (p. 52).

During the course of the fieldwork and the on-going interpretation of the empirical insights, alternative research topics emerged (Ahrens *et al.*, 2008). The next subsection examines the alternative research topic which became the main focus of this research, and the related changes in theoretical framework(s) and research design options. In chapter 9, additional potential research topics which were not developed in this thesis are discussed as future research avenues.

4.1.4 EMERGENT RESEARCH TOPIC AND THEORETICAL FRAMEWORK(S) - AND A REVISION OF RESEARCH DESIGN

4.1.4.1 The exploratory stage of fieldwork, in practice: an account of a research process

As the researcher gained a deeper knowledge of the empirical setting, alternative research issues emerged which appeared to be both empirically and theoretically relevant. In line with Tomkins and Groves’ (1983) recommendations about the ‘exploration’ stage of naturalistic research, these alternatives were evaluated, considering their possible contribution and their feasibility (in particular, considering access possibilities and resources availability).

Persistence in the exploratory stage of the fieldwork and the evaluation of alternatives

The first research endeavours focused around the three key pillars of research question: the ERP, consultants and MAC. The initial interviews and internal project documentation confirmed that the implementation of the financial accounting module (SAP FI) also required implementing some costing components. Although the main implemented module (about financial accounting) was not directly related with MAC₂, this did not compromise the adequacy of the empirical site, for several reasons. First, as stated, the implemented ERP also *did* include some costing components. Second, the implemented modules related to several aspects of accounting and control (even though neither mainly nor strictly about *management* accounting). Third, additional SAP modules had been since then implemented, with unknown (but potential – Dechow and Mouritsen, 2005) consequences for MAC. Fourth, very early informal conversations revealed that a product costing project was about to start. And fifth, it was recognised that the researcher's knowledge about the case organisation was still superficial and further fieldwork could provide additional research insights.

The first insights obtained about SAP modules implemented in 1999 characterised the project mostly as *technical*, addressing a technical problem. In line with the initial research question, particular attention was devoted to exploring changes in MAC. However, *initial interviews suggested little changes* of a fundamental nature induced by SAP FI. Increased information quality, consistency and timeliness were recurrently mentioned, but hardly any insights about fundamental changes were obtained. The lack of early insights about fundamental changes did not, again, stop the fieldwork, on two grounds. First, because the reasons stated in the previous paragraph were still valid. And second, because *the lack of change* is an equally interesting

research topic (e.g., Burns and Scapens, 2000; Dechow and Mouritsen, 2005; Granlund and Lukka, 1998; Ribeiro, 2003) and is particularly well explored by institutional theory (Droege and Johnson, 2007; Granlund, 2001; Seo and Creed, 2002).

During the first interviews, the researcher became aware of the creation, between 1998 and 2002, of a Corporate Centre and a Shared Services Centre (SSC) in Portugal. But these two organisational structures also appeared, *initially*, to have created limited impacts in terms of new techniques or approaches in MAC.

A very early interview with a CC member identified the creation of the SSC as a response to persistent limitations perceived by actors that could be classified as ‘central’ actors, i.e., associated with the organisational ‘centre’ (the categorisation of actors is discussed in page 262). This interviewee also provided insights about strong resistance from ‘local’ actors, and the topic of power was then, spontaneously, first raised by an interviewee (“*[The SSC] was clearly perceived as a loss of power*”). Ensuing interviews provided further insights about tensions between central and local actors and difficulties perceived by a number of central actors. However, the researcher did not consider, at that stage, that the distribution of power was a key issue and was fundamentally affected by several innovations introduced. In fact, at this stage, organisational innovations such as the creation of a corporate centre and a SSC in Portugal were considered as important, but merely part of the context (Yin, 2009).

There was a particular attempt to identify ways in which the ERP system and consultants might have contributed to changes in MAC. In October 2005, the researcher requested permission to accompany the teams (which included a strong presence of consultants) implementing a new SAP module which replaced previous product costing

systems¹⁹. However, the organisation *denied authorisation*. Although interesting research insights about the background and central actors' expectations about this project had already been obtained, it was considered that lack of possibility to obtain information about *actual* changes precluded this project to become the research focus. Therefore, this research alternative was abandoned, and insights about it became a part of the context.

Therefore, during two years, the researcher kept the original research question, exploring the interactions between the ERP system, the consultants that implemented it and MAC, with a focus on the overall process of change since SAP FI adoption – not restricted to cost accounting but encompassing a broader interest about management accounting and control.

Realising the importance of power: the trigger and 'connecting the dots'

Only in March 2007, in an interview with a senior manager, did the researcher realise the full importance of the limitations perceived by key central actors in late 1990's and the early years of the new millennium, and how they had driven the organisational innovations.

Until this interview (the 32nd), the researcher had considered, in line with the perspective of an early interviewee, that the creation of a Corporate Centre in Portugal was a consequence of increased information needs, due to the larger organisation size and complexity after the large international acquisition in 1998, promoting the adoption

¹⁹ The long-term perspective would still be retained, even in this research alternative, for two reasons. First, the fieldwork would be extended for some time after the implementation was concluded, at least as regards some countries. Second, the long-term perspective was ensured as regards the overall process since the adoption of SAP FI.

of more sophisticated accounting systems²⁰. However, this senior manager rejected such a ‘rational’ explanation and highlighted the influence of the chairman and majority shareholder:

Researcher: *“When the transfer of the Corporate Centre to Portugal was considered, was it in a different concept from what existed in Spain?”*

Respondent: *No. I wouldn’t say it was different. We had some notion that we had to harmonise things, harmonise all the administrative and financial area, the management control area. We had started implementing Hyperion, the consolidation software (...); we were starting to centralise treasury. So, we already had the model and we were heading towards it. (...) The location in Portugal has to do with the origins and some proximity with the decision centres, exclusively. (...) [It made explicit that] this is a Portuguese company (...) and the decision centre is in [Portuguese city]. So that no doubts exist. (...)*

[The Corporate Centre relocation is above all justified] from the shareholder point of view. ‘I am a Portuguese company, I don’t want to be a Spanish company, and therefore I don’t want my decision centre in Spain, I want my decision centre in Portugal.’ (...) The rest, the concept [underlying the Corporate Centre] was exactly the same.”

The initial reaction of the researcher was one of disappointment, leading to the following annotation in the interview transcript: *“makes my story less interesting and substantial! No technical / organisational ‘novelties’ were being introduced, just a location + power issue.”*

However, this interview triggered a deeper reflection and re-examination of previous interview transcripts and analyses, far beyond the specific topic of the

²⁰ This interviewee’s highlight of dependencies between the CC and SAP FI are valid and are indeed considered in the ensuing chapters. “The start of SAP (...) coincides with a phase of the group in which a corporate centre is created. The organisation itself (...), in its process of acquisitions and organic growth, reaches a stage in which it needs a corporate centre, with finance, management control, etc.. And that corporate centre needs tools and finds things [solutions] scattered all over the place. It has no tools, so it is urgent to have tools.”. However, this excerpt depicted a unitary view of the organisation, it explained the introduction of an innovation as a rational response to new organisation circumstances (its larger size) and, implicitly, suggested that the Corporate Centre concept was a novel concept in the organisation. These three factors threw the researcher’s attention away from potential underlying power and control motivations of particular organisational actors.

Corporate Centre. This reflection allowed to “reconnect the dots (...) looking backwards” (Jobs, 2005) at past research steps, interviews and analyses, shedding light on a particular perspective of the empirical material. This reflection suggested that various innovations (in particular, SAP FI, the Corporate Centre in the new location and the SSC) could be understood (at least, partially) as *materialisations of strategies of power*, as particular as regards actors broadly associated with the ‘organisational centre’. As regards some aspects, power emerged as having a fundamental relevance; as regards others, it was apparent only at a more fine-grained level.

This interview brought numerous previous insights about power from the context to the core of the analysis. This interview had the effect, not as much to detect issues in previous interviews which had not been noticed at all, but rather to bring those previous insights to the forefront of the analysis. In addition, this interview and the ensuing adoption of a new research topic naturally influenced subsequent fieldwork, since ensuing interviews paid greater, specific attention to explore the issue of power²¹. Having the opportunity to develop significant additional fieldwork focused on the emergent research topic (and theoretical framework, as discussed next) was indeed crucial and avoided the limitation of a late adoption of a new theoretical framework (Coad and Herbert, 2009). In fact, 22 interviews were made after positioning the topic of power at the centre of the research. This significant number of further interviews provided additional focused insights, which added to the many insights on this topic obtained through the first 31 interviews - which were then reviewed with a particular

²¹ This shift in the research process highlights the epistemological assumption of naturalistic research that the investigator has an active role in the research process. Knowledge is socially constructed, not only due to the investigator’s emerging interpretation of the empirical domain, but also because knowledge is influenced by the particular foci that the investigator pursues or abandons, brings to the forefront or downplays to the background, at each moment of the research process.

concern on the topic of power (key interviewing figures are presented in the next section).

4.1.4.2 An emergent research topic and theoretical framework: bringing in the issue of power

Incorporating a new, broad concern on issues of power required the identification of a *new, specific research topic* and a new theoretical framework. These two changes were actually intertwined, with the search for theoretical frameworks being instrumental in defining precise research questions. This is analysed next.

The new theoretical framework: Clegg (1989) and Ribeiro (2003)

From an empirical perspective, the empirical insights suggested that the issue of power was important. But *theoretical* pertinence had also to be demonstrated - and that required a new stage of literature review, focused on power. This literature review included a search for a theoretical framework which could be mobilised to assist with the interpretation of this particular empirical domain and allowed addressing the emergent empirical puzzles.

In addition, it was considered that the generated insights related with the initial institutional framework and the initial research concerns remained pertinent. Furthermore, fundamental notions underlying institutional theory can be stated in explicit power terms. For example, from an OIE perspective, it can be argued that prevailing institutions have the *power* to shape the behaviour and rules enacted by the institutional participants, and therefore have the *power* to stabilise the institutional context and prevent the introduction of incompatible innovations. Therefore, this new

stage of literature review also analysed the extent to which frameworks of power could be related with fundamental aspects of the original framework and research concerns.

Ribeiro (2003) was a particularly influential work, as acknowledged in Chapter 3. Like the author of this thesis, Ribeiro (2003) also took institutional theory (and, in particular, Burns and Scapens' (2000) OIE model) as a starting point. Then, during the fieldwork, he reached out to literature about power (in particular, Clegg, 1989) to make sense of puzzling empirical insights. His work resulted in bridges between OIE and Clegg's (1989) model, although Clegg's model remained fundamentally unchanged. In addition, Ribeiro located key concerns of OIE (such as accepted and enacted rules) within Clegg's (wider) framework of "*Circuits of Power*".

Therefore, Clegg's (1989) framework and its linkages with institutional theory as proposed by Ribeiro (2003) were adopted as key interpretive lenses to orient and make sense of the empirical insights. In turn, these frameworks were also fundamental in defining the new research (general) topic and specific research questions.

The new research topic: rules and techniques as crucial factors for power within organisations

Rules and techniques (of discipline and production) emerged as theoretically and empirically relevant topics. From a theoretical perspective, *rules* are a major intersection between the OIE framework (Burns and Scapens, 2000) and the power framework (Clegg, 1989). As argued in chapter 2, rules have a central role in the adopted OIE model, but have been somewhat neglected when compared to institutions and routines. In addition, such neglect may be also related with a limited scope attributed to concept of rules: only *formal* rules. An alternative, broader concept of

rules, emphasising their role as *cognitive structures* orienting actors' behaviours and interpretations, was argued to be preferable.

From an empirical perspective, rules were also found to be relevant in this case study. In fact, the limitations perceived by the central actors in the late 1990's and the innovations they introduced in the following years were strongly related with rules accepted and enacted throughout the organisation, and the repercussion of these rules on the attainment of (or failure to attain) central actors' interests. This led to the identification of the following three empirics-related research objectives, which highlighted the high (though not exclusive) importance of rules.

In turn, it was also apparent that extant techniques, such as information systems and organisational structures, were also a central piece of the puzzle of power. In addition, OIE views techniques more as external influences, rather than as active players. The new theoretical framework, by providing a stronger focus on techniques (of discipline and production) seemed to have potential to bring novel insights into OIE.

The *first research question* set the background to contextualise the ensuing organisational changes, by analysing the limitations perceived by central actors by the end of the 1990's – i.e., before the various innovations were introduced. Therefore, it provided a theoretically structured interpretation of the empirical setting, highlighting the aspects ('circuits', in Clegg's framework) limiting central actors' power. Therefore, the first research objective (addressed in chapter 5) is to...

1) Explain why some formally powerful, central actors at the case study organisation were confronted with power limitations.

Building on the characterisation of the empirical setting by the end of the 1990's, and in particular of the power limitations of central actors, the *second research question* aims understanding why three innovations were introduced in the subsequent years. As mentioned, these innovations were the adoption of the SAP Financials module, the relocation of the Corporate Centre and the creation of a Shared Services Centre and they are conceptualised as technological and organisational innovations introduced in the circuit of system integration of the case study organisation (Clegg, 1989). Therefore, the second research objective (addressed in chapter 6) is to...

2) Explain why and how some central actors introduced and mobilised technological and organisational innovations.

As argued, a major goal of central actors was to bring about the acceptance and enactment of rules aligned with their objectives. This repercussion on the circuit of social integration would constitute a major contribution to overcome the perceived limitations. Chapter 6 is both *explanatory* ('Why'?) and *processual* ('How'?), since it analyses central actors' *ex-ante* motivations and expectations (rather than actual, *ex-post* repercussions of the innovations), as well as the processes related with the introduction of those innovations.

The *third research question* analyses the *actual* repercussions of the three innovations, and how they contributed to achieve the objectives of central actors. The repercussions were multiple and across the various circuits of power, but with a stronger focus on the two structural circuits of power and, in particular, on the circuit of social integration. Therefore, the second research objective (addressed in chapter 7) is to...

3) Explain how technological and organisational innovations influenced the acceptance and enactment of rules and increased the power of central actors.

Although the change processes are conceptualised as never ending, the long-term, retrospective nature of this study allows considering that this chapter is mainly an *ex-post*, processual analysis, starting from the key period in which those innovations were introduced and spanning across the years, until the time of the fieldwork.

It should be noted that these research questions still exhibited strong links with the original research purposes. The adoption of an *ERP* system (in particular, SAP financial modules) remained a key research topic, which was complemented by an additional and complementary focus on the creation of accounting and finance organisational structures. In addition, although the changes spanned beyond *MAC*, this area remained prominent in the analysis. Finally, these changes occurred in processes which spanned across many years, hence linking to the *long-term* concern of the original research question. The trilogy of the new research questions did not analyse consultancy as a major focus. Nevertheless, the empirical insights made clear that their role in the overall process was crucial in many and diversified ways (see, in particular, section 6.1).

Two additional research questions were more directed towards theory development, in the two areas of the literature from which this work drew upon (literature on power and institutional literature), and in particular to the two main deployed frameworks (Clegg, 1989 and Burns and Scapens, 2000).

Clegg's framework was proposed over two decades ago and, although numerous authors have already used it in empirical research, no substantial developments have been proposed yet. To the researcher's knowledge, only minor adaptations have (sparsely) been proposed, without constituting actual theoretical developments (see section 3.5). Clegg's (1989) framework was intensively and extensively deployed during the interpretation of the case study, and this contributed to highlight that some concepts and relationships of the framework could be clarified or completed. Therefore, a first broader research objective became to...

1) Contribute to the power literature by developing Clegg's (1989) framework

In addition, based on the analysis of institutional theory, and OIE in particular, carried out in chapter 2, it was apparent that improvements in the original OIE framework (Burns and Scapens, 2000) might be possible. Over the last decade, several authors have presented proposals to develop, refine or complement the model (e.g., Coad and Herbert, 2009; Granlund, 2001; Lukka, 2007; Quinn, 2010; Ribeiro, 2003, Robalo, 2007). However, the limited attention devoted to rules within the original framework remained. In addition, the insights generated during the case study highlighted ways to enrich this particular area of Burns and Scapens' (2000) framework. Therefore, a second broader research question became to...

2) Contribute to the Old-Institutional Economics literature by developing Burns and Scapens' (2000) framework

It should be noted that the development proposed to Burns and Scapens' framework is actually very different from the original model (this discussion is developed in section 8.2). One of the reasons for such difference is that this proposal incorporates insights from Clegg's (1989) framework and, inherently, from its theoretical underpinnings. Among such different theoretical backgrounds of Clegg's framework, the Foucauldian approach and Actor-Network Theory are prominent. This combination of theories is further analysed when theoretical triangulation is discussed below in this section. Before that, a closer look is given to the ontological and epistemological assumptions of the theoretical strands at stake (interpretive and institutional theory; and the Foucauldian and ANT approach).

4.1.4.3 A re-examination of the research approach: bringing in Foucault and Actor-Network Theory

As discussed in Chapter 3, Clegg's (1989) framework is based on Foucauldian and Actor-Network Theory (ANT) ontological and epistemological assumptions. The adoption of Clegg (1989) as a core framework presupposes the acceptance of its underlying assumptions.

Foucauldian- and ANT-inspired literature is sometimes included among the so-called *critical (or radical) perspectives* (e.g., Ryan *et al.*, 2002); other authors prefer to classify it as *postmodern* (e.g., Baxter and Chua, 2003). Regardless of the adoption of one or the other classification (to be discussed below), it can be questioned the extent to which Foucauldian and ANT perspectives may have different assumptions from those which shaped the initial research design: the interpretive research perspective and, in particular, its particular field of institutional theory.

In fact, several authors have commented on the differences between the various research perspectives (e.g., Hopper and Powell, 1985; Laughlin, 1995; Ryan *et al.*, 2002), with Chua (1986) and, ultimately, Burrell and Morgan (1979) being the fundamental sources for their analyses. In this section, while agreeing on the existence of differences, it is argued that the Foucauldian approach can be more easily reconciled with the interpretive approach than the classification of research approaches in mutually exclusive ‘boxes’ (Burrell and Morgan, 1979) might suggest. In addition, Burrell and Morgan’s strong suggestion that paradigms are mutually exclusive (the widely discussed argument of ‘paradigms incommensurability’) has been criticised, e.g., by Chua (1996), Hopper and Hoque (2006), Laughlin (1995) and Willmott (1993) (see also Modell, 2009 and 2010, defending bridges between paradigms). It is now argued that these approaches are actually not very distant in the ‘continua’ of the two criteria typically used to classify research approaches: emphasis on change and the objective/subjective dichotomy.

Therefore, this subsection now re-examines the overall research design. It analyses the extent to which this new framework and its underlying Foucauldian and ANT assumptions are compatible with the original institutional theory lenses and the adopted interpretive approach, including from a methodological perspective.

Interpretive research, Foucault and ANT: a common, low emphasis on social change

At the start of this subsection, it was argued that the main fundamental difference between critical (in which some authors have included Foucault) and interpretive approaches may arise from their different agenda as regards social change. Typically, critical research has a high emphasis on a political agenda to radically change

society. Since the interpretive approach has no such agenda, the inclusion of a Foucauldian perspective might be thought to cause contradictions.

In spite of Foucault's political engagement (Ryan *et al.*, 2002), his approach to social change is fundamentally different from, and even opposed to, Marxist-inspired critical approaches (see chapter 3 and Clegg, 1989 and 2001; Clegg *et al.*, 2006; Hardy and Leiba-O'Sullivan, 1998; Lukes, 2005). Authors like Baxter and Chua (2003), Bhimani (2002) and Hardy and Leiba-O'Sullivan (1998) classified *Foucauldian research as postmodern*, rather than critical or radical. Benton (1989), in his review of Miller (1987), strongly downplayed the similarities between the concerns and approaches of Foucault and those of critical researchers. Foucault's network ontological perspective is a clearly distinctive trait when compared to Marxists' focus on social classes, with crucial consequences on how power may be distributed among actors and on what kind of domination the two approaches are concerned about. There is "no autonomous subject waiting to be liberated through critical awareness" (Hardy and Leiba-O'Sullivan, 1998, p. 459). From an epistemological perspective, Clegg (2001, p. 126) noted that "Foucault is unable to find any place for error or falsehood" or, as reanalysed in Clegg *et al.* (2006, p. 255), "[i]t is not that Foucault does not acknowledge truth; rather, he does not acknowledge a *single* truth. That is, he does not privilege any one version of truth over another; rather, he recognises that different social systems or cultural regimes will have versions of truth that reflect the regime's historical constitution of knowledge" (emphasis in the original). Therefore, Hardy and Leiba-O'Sullivan (1998) concluded, as regards the main topic of this thesis, power: "[b]ecause no privileged position exists from which analysis might arbitrate, a Foucauldian view of power differs from critical theory" (p. 459). (In addition, this perspective on the

(im)possibility of a *single* truth resonates with a subjectivist approach to research, another characteristic in interpretive research, as discussed below.)

As regards the agenda of social change, importantly, Laughlin (1995) argued that Foucault's "underlying emphasis that each historical period is no better, only different, from any previous era" removed "the urgency for change. (...) [W]hat is the point in changing the *status quo* when (...) all that is happening is that one 'disciplinary power' network is being exchanged for another?" (p. 76) (see also Hardy and Leiba-O'Sullivan, 1998).

Interestingly, the *opposite* perspective (of the promotion of change) also suggests convergence between Foucauldian and interpretive approaches. Although without constituting a major concern, an interpretive approach can also highlight the role of power, highlight that some actors may dominate (and be dominated by) others, and shed light on potential mechanisms and structures of domination (e.g., see Burns, 2000 in an OIE perspective). Such 'illumination' by institutional theory can contribute to the dominated parties' awareness and potential reaction and opposition against such domination – hence potentially serving an 'emancipatory' purpose, so typical of critical approaches. However, and importantly, both approaches view such phenomena as *localised, specific tensions* (e.g., in particular organisations, groups, etc.); neither approach views them as macro-social tensions, or reflections of macro-social tensions, as Marxists do. They do not have a clear and oriented emancipatory agenda at a social level and they do not take sides in the local struggles they focus; this is clear as regards interpretive approaches, and Laughlin's (1995) quote above makes a similar, compelling argument as regards a Foucauldian approach.

Combining the two above perspectives, interpretive and Foucauldian approaches converge on their *potential* to highlight, and eventually contribute to overturn, situations of control of certain parties about other parties. However, and importantly, both do it in a quite *non-partisan* way, with no overarching ideology to take sides and with *no emancipatory agenda*. Given this last perspective, it is significant that Laughlin (1995) classified both ‘French critical theory’ (including Foucault) and ‘Structuration Theory’ (an important pillar of institutional theory, as discussed in chapter 2) in the same way: both have a *low* “level of emphasis given to the critique of the *status quo* and the need for change” (p. 70). Reflecting these dual perspectives (of a *potential* to promote change, but the *absence* of an emancipatory agenda, in both theories), Scapens (2004) diverged slightly from Laughlin and argued that *both* approaches have a *medium* emphasis on change.

Therefore, overall, both interpretive and critical Foucauldian approaches place a low (or at most medium) emphasis on fundamental changes in society. As such, no major incompatibilities as regards this aspect seem to emerge from combining both approaches in this research.

Interpretive research, Foucault and ANT: a similar subjectivist perspective and similar types of theories and methodologies

At a more general level, interpretive, critical and postmodern approaches can all be considered as ‘alternative’ approaches to the mainstream, positivistic approach (Baxter and Chua, 2003). They all also share important assumptions. They all consider that social practices are socially constructed, rather than natural phenomena (Ryan *et al.*, 2002). As regards the traditional objective/subjective dichotomy, interpretive, Foucauldian and ANT approaches would all be situated in the subjective side. The

above discussion about Foucault's scepticism as regards a *single* truth in society is, necessarily, matched by scepticism as regards the pretension to achieve a *single* truth in research. Importantly, "rather than viewing the researcher as all-knowing, all-seeing and objective, (...) [a Foucauldian] perspective draws attention to the relation between the researcher, the research process, and the 'knowledge' produced" (Hardy and Leiba-O'Sullivan, 1998, p. 459). Therefore, a Foucauldian approach fully accepts subjectivity, like interpretive research does – although adding a particular stress on highlighting researcher's interests, arguing that "[t]he researcher is no disinterested observer" (*ibidem*).

The three approaches remain identically positioned if the objectivist / subjectivist distinction is replaced by Laughlin's (1995) proposal of the two dimensions 'prior theorisation' and 'theoretical nature of methods'²². As regards the two dimensions, Laughlin classified 'French critical theory' and 'Structuration Theory' equally (as he did regarding the emphasis on the need of change), as having similar 'medium' levels of prior theorisation and 'low' levels of theorisation underlying their methodology.

Therefore, at the macro level considered by Laughlin, interpretive and Foucauldian and ANT approaches do not exhibit drastic contrasts. However, these 'macro level' aspects have consequences on more detailed case study aspects. This is analysed next.

²² The objectivist / subjectivist dimension has been contested (e.g., Laughlin, 1995; Chua, 1996) and alternatives have been proposed (e.g., Laughlin, 1995). However, this work does not get into such debate, since the alternatives converge in considering that the interpretive, Foucauldian and ANT approaches are similarly positioned as regards the classification criteria adopted by each alternative.

4.1.4.4 Keeping fundamental case study options

The adoption of a new research topic (intersecting rules and power), theoretical framework (Clegg's framework) and broader theoretical perspectives (Foucauldian theory and ANT) *did not imply* changing the fundamental option for *qualitative* research, for a *processual* perspective and for the *case study method* and its main characteristics (including its *longitudinal and retrospective* components). However, this maintenance should be justified.

In fact, the key concerns which, in an interpretive perspective, led to the option for qualitative research and the case study method (obtaining an in-depth knowledge of the empirical setting in its natural and holistic context to understand processes of change) remain equally valid in a Foucauldian and ANT perspective. In particular, these concerns reinforced the option for a *single* case study (vs. executing the option of expanding to multiple case studies). As regards the number of units of analysis, it was considered that although several areas of the organisation would be encompassed (several central and local units of the organisation), the main thrust of the study would rely on its integrative nature. This confirmed the option for a *holistic*, single case, in which the single unit of the analysis corresponds to the case unit (as already clarified, this does not imply researching the entire organisation).

Finally, the *retrospective* research component, which in the original design co-existed with the longitudinal research component, maintained and even increased its relevance, for both empirical and theoretical reasons.

From an empirical perspective, key events regarding the emergence of the organisational centre started occurring at the end of the 1990's. Although they

continued to evolve and produce effects at the time of the fieldwork (therefore being adequately researched in a longitudinal way), understanding their antecedents, their unfolding and their multidimensional consequences required an in-depth research of the organisational past. The long period elapsed raised the importance of the retrospective component in the development of the empirical narrative and understanding.

Theoretical reasons also justified attributing a central place to the retrospective component. Foucault was particularly interested in highlighting the ‘archaeology’ of phenomena (such as power). This archaeological interest requires the analysis of (current and past) continuous processes of translation (Callon, 1986; Legge, 2002; Lodh and Gaffikin, 2003). Therefore, although an ANT approach sets specific challenges about fieldwork exploring past aspects of strategies of power (to be discussed in the next section), the retrospective component was crucial to provide a historically-grounded understanding of the empirical domain.

4.1.4.5 Theoretical triangulation

As described above in this section, the potential desirability of combining theories as the study progressed was acknowledged at the outset of the research (Humphrey and Scapens, 1996). Furthermore, it has also been discussed how this research started within an interpretative approach, and how Foucauldian and ANT approaches were also adopted during the course of research. The process of adoption of the new Foucauldian and ANT approaches did not imply the replacement of the previous interpretative approach, and “the research was not recast” (Major and Hopper, 2005, p. 212) into the newly adopted approaches. Therefore, there is a need to discuss the *theoretical triangulation* (rather than replacement) carried out.

According to Hopper and Hoque (2006, p. 478), “[t]heoretical triangulation involves using various factors from a variety of theoretical perspectives simultaneously to examine the same dimension of a research problem”²³. Theoretical triangulation is typically attempted by a particular researcher, or team of researchers. Recently, Modell (2010) defended that *two* teams analysed the same substantive issue endorsing different paradigms, in order to promote wider “meta-triangulation” and hence “engender inter-paradigmatic engagement” (p. 124) – an objective Modell recognised to face various challenges.

In this case, departing from institutional theory and then adding the Foucauldian and ANT approach represented drawing from, and combining, two different (though not opposing, as demonstrated above) theories. The adoption process could more aptly be described as an *addition of particular topics of interest, concerns, scepticisms and language*. E.g., ANT’s notion of a fluid, instable and ever shifting actor-network can be accommodated within an interpretative approach without radically changing it, without making it lose its fundamental and distinctive characteristics. Hence, it could be argued that this study performed a (mostly) “within-same tradition” theoretical triangulation (rather than a triangulation of fundamentally different assumptions) (Hopper and Hoque, 2006, p. 478). Therefore, the performed theoretical triangulation posed fewer and less serious challenges, than it would be the case if attempting to combine more ‘opposing’ theories, or even paradigms (Modell, 2009 and 2010)²⁴.

²³ Alternative notions of theoretical triangulation (e.g., “[w]here a theory is taken from one discipline and used to explain a phenomenon in another discipline”, Hussey and Hussey, 1997, p. 78, emphasis removed) are not endorsed in this work. *Data* triangulation is analysed in the next section. For triangulation between researchers (not applicable to this study), see Creswell (2003), Hopper and Hoque (2006) and Yin (2009)

²⁴ Given the *absence* of a deep opposition between the triangulated approaches, the caveats expressed by some authors about theoretical triangulation involving more dissimilar theories are not so applicable to this case. E.g., Major and Hopper’s (2005) combination of a “labour process analysis with technical, and

Theoretical triangulation “offers alternative interpretations of the same phenomena (...), [b]ecause each theory can reflect distinctive insights on various dimensions” of the phenomena, in a complementary way in which “[n]o theory has a prerogative of truth” (Hopper and Hoque, 2006, p. 479). Researching “multifaceted and multi-dimensional” phenomena requires a theoretical “toolkit logic” (Nicolini, 2010, p. 1395), which is indeed consistent with the endorsed concept of the researcher as a ‘bricoleur’ (Denzin and Lincoln, 1994).

Complementarity between theories, in particular when they do not directly contradict each other, does *not exclude* an ‘explanatory competition’ between them, as particular lenses to analyse phenomena. In a slight adaptation of Becker (1970, p. 20), cited in Ahrens and Chapman (2006, p. 833), “[w]e should not expect identical results when (...) the same organisation [is studied] from different points of view [e.g., with different theoretical lenses]. What we have a right to expect is that the two descriptions be compatible, that the conclusions [based on a given theory] do not implicitly or explicitly contradict those of the other”. This ‘explanatory competition’ consisted in different theories highlighting different routes and factors for the interpretation and explanation of the empirical insights – which indeed sometimes both allowed *and* obliged the researcher to be more exacting as regards the acceptance of a given interpretation or explanation.

The combination of two different (*though not opposing*, as demonstrated above) theories required such *critical scrutiny* to be *permanently incorporated* in the core of the

factor and process approaches” involved theories which diverge in important aspects. Hence their caveat: “There is no attempt at theoretical integration or coherence - this would render violence to the findings and assumptions of each approach and, given their different assumptions, it would be philosophically doomed” (p. 212). Furthermore, as noted, authors like Modell (2010) are significantly more optimistic about the potential of theoretical triangulation, including between highly different perspectives and even paradigms.

explanation. It goes beyond a relatively ‘sanitised’ and almost ‘background’ check, when alternative theories *other than* the *single* theory adopted by the researcher are considered to cross-examine the empirical insights. It goes beyond a cross-examination with an alternative (but non-adopted) theory. In fact, it requires that the researcher reconciles the interpretation of the empirical insights according to the two theories that are *both* present at the core of the researcher’s framework - or, at least, it requires making those interpretations compatible.

As discussed in the next section, a standard concern of case study research should be to search for, and evaluate, alternative or rival explanations (Yin, 2009). Since a major role of theory is shaping explanations, this search for alternative explanations should be extended *beyond* the empirical realm, and should include the attempt to deploy alternative, rival *theories*.

When discussing theory development, Scapens (1990) argued that “*all* explanations are partial and capable of development in the future” (p. 276, emphasis in the original) and that theory should be adequate to address the research problem. Theoretical triangulation potentiated the attempt to *anticipate* some of those *future* moments into the *present*.

4.1.5 CONCLUSION

The first section analysed the fundamental assumptions and choices of this study. Like the empirical study itself, this analysis of the research design had a *processual* concern, i.e., to give an account of the research *process*. This section intended to highlight the various – and fundamental – dilemmas and choices of the

researcher and to explain *why* and *how* the research choices were taken (and also questioned and re-examined).

Particular attention was devoted to justifying the option for the case study method as being consistent with the wider research assumptions, theoretical backgrounds and objectives. Further attention was directed to explain case study alternatives which were actually deployed, as well as alternatives which were an option but were never deployed (e.g., the option of expanding to multiple case studies). The two temporal perspectives of this research – the retrospective and longitudinal components – were also discussed in detail.

During the course of research, some previous research aspects were confirmed and continued (e.g., the major ontological and epistemological assumptions, the naturalistic approach and the choice of the single, holistic case study method). However, there were also shifts and corrections (e.g., the research topic and the theoretical framework). In particular, theoretical triangulation was a key step, which shaped the study interpretations and explanations, as the researcher attempted to make sense of the emerging empirical insights. The next section now analyses more detailed aspects of the study.

4.2 DETAILED CHOICES AND CHARACTERISTICS IN DESIGNING AND CONDUCTING THE CASE STUDY

This section discusses more detailed aspects of choices taken during both the design and conduction of the case study. It also provides more detailed information characterising the conducted research, in order to support the evaluation of the work internal validity. The first subsection discusses the organisational and temporal scope of

the research, and how a deliberate research strategy had to be supplemented by an emergent research strategy to accommodate for unpredicted – and unpredictable – events (as recognised at the start of this chapter). The second subsection discusses various techniques deployed to generate information, ranging from general reflections on consequences of using various theoretical lenses, data triangulation efforts and more detailed information about the various techniques (with a particular attention devoted to interviews). The final subsection discusses techniques deployed to analyse information, including a reflection on the choice of not using computer-assisted techniques of analysis.

4.2.1 THE DEFINITION OF THE ORGANISATIONAL AND TEMPORAL SCOPE AND ISSUES OF ANONYMITY

4.2.1.1 The definition of the organisational scope

As clarified in the previous section, the option for a single, embedded case study prevailed both in the original and the revised research design. The previous section has also already preliminarily described the approach to the empirical domain; a more detailed description is now provided.

Given the research topic and concerns, the researcher established contacts with two major consultancy firms with a large experience in implementing ERP systems in Portugal (the researcher's country of origin), in late 2004. In February 2005, the consultancy firm 'ITC' agreed to participate ('ITC' is an acronym for 'Information Technology Consultancy', fictitious expressions to preserve anonymity, as discussed below in this subsection). Given ITC's agreement, the researcher withdrew the proposal still being analysed by the other consultancy firm.

In a preliminary analysis, the client that the consultancy firm suggested appeared to fit the organisation profile defined by the researcher: having implemented an ERP in the financial area for a significant number of years. This client, organisation ‘*Industrial Company*’ (identified by the acronym ‘*IndCo*’, both fictitious expressions to preserve anonymity) had production facilities in several countries, but its headquarters were in Portugal (section 5.1 characterises the organisation in greater detail). This organisation had implemented the ERP market leader, SAP, in the accounting area, between 1999 and 2001. The core project had been the implementation of the financial accounting module (SAP Financials - SAP FI), including some cost accounting components.

The consultancy firm facilitated the contact with a senior IT member of the client, the main interlocutor of the consultancy firm and a key member of the SAP project, who authorised the start of the case study. Two informal cooperation agreements, based on confidentiality, then started with both organisations, and the fieldwork started in March 2005.

In line with the definition of an embedded, single case study, organisation IndCo (as the client in which the consultants had implemented the ERP financial modules) was conceived as the single unit of analysis of the (single) case organisation. Although no *a priori* boundaries were imposed on the empirical domain, and although the case was conceived as an *embedded* case study, not all parts of the organisation (and certainly not all individuals) would be included in the fieldwork. Given the large size and geographical dispersion of the company, such option was simply unthinkable – in addition to having a doubtful theoretical pertinence. The delimitation of the empirical domain was therefore primarily based on theoretical concerns, while also considering the feasibility of the options.

The initial research topic (long-term interactions between the ERP, consultants and MAC) oriented the *initial functional delimitation* of the organisational scope. This *initial* and provisional delimitation was defined in cooperation with the researcher's interlocutor in the organisation, whose assistance was invaluable, given the researcher's limited detailed knowledge about the internal (individual and collective) actors. The research topic recommended approaching the IT department and several departments related to the financial area (in particular, the management control department and the Shared Services Centre). A recently created Business and Processes Organisation (BPO) Department was also approached, given its role in change processes; in addition, its leader was one of the consultants who had been involved in the SAP FI implementation. To gain insights about the users of information, the commercial area was also included, although with a minor emphasis when compared to the IT and financial areas. It was planned that, for similar reasons, the production area should also be included, in a later stage. Finally, the consultants who had been involved in the implementation of SAP FI and still worked in the consultancy firm (who were *external* actors, *vis-à-vis* the organisation) would also be contacted.

As regards the *geographical delimitation* of the organisational scope, and given the presence of the organisation in several countries, it was considered that the primary focus should be in Portugal, where the company was originated, the headquarters of the company (and its group) and various plants were located. Expansion of the research to other countries was considered as potentially relevant; however, it was also considered that the development of the fieldwork and analysis, along with the consideration of inevitable resource limitations, should orient the decision about the geographic scope. Such decision was discussed in the first interview at IndCo when access was negotiated,

and it was agreed that the fieldwork would be developed in Portugal until justification was found to expand such geographical scope.

As already mentioned, the new topic about power was adopted after a key interview in March 2007 – two years after the start of the fieldwork. Researching this new topic required additional fieldwork in the previously mentioned functional areas. In addition, the strong emphasis on the local level led to the actual *inclusion of the production area* in the fieldwork scope (as planned from the start but not carried out up to that stage). Given the importance of the production activities beyond Portugal, the geographical scope was expanded to *include Spain*. IndCo had been present in this neighbouring country since the early 1990's, and organisation structures located in Spain were at the core of relevant power issues.

In addition, for both the original and the final research topic, the on-going fieldwork indicated that understanding IndCo's processes of change required *considering the group* in which IndCo was included. IndCo's group was considered as a prominent 'contextual' unit, as an important part of the organisational context (although not a part of the 'core' of the case - Yin, 2009). Therefore, considerable attention was also devoted to obtain information about it, through several research techniques (to be discussed in the next subsection).

4.2.1.2 The definition of the temporal scope of the fieldwork and of the research focus

As discussed, both the original and the final research topics implied a retrospective component (encompassing the research of past events), in addition to a longitudinal component (based on 'real time' fieldwork). The existence of a

retrospective component implies that the *period of the fieldwork* does not coincide with the period of organisational life focused by the researcher – the *empiric time frame*. Therefore, there were two decisions to be taken regarding temporal scope: the end of the fieldwork; and the start and the end of the empiric time frame (which may or may not coincide with the end of the fieldwork). These were not simple decisions (e.g., Lodh and Gaffikin, 2003).

It was always considered that the *empiric time frame* would have to be extended, for several reasons. The first reason is related with the choice of researching *long term* interactions, in a processual perspective. However, the adopted processual view significantly complicates the definition of the boundaries of the empiric time frame (e.g., Pettigrew, 1995). A processual view depicts organisations as permanently ‘in process’, in a permanent state of becoming. Therefore, it is not possible to hermetically define *the* starting and ending points of a process. The adoption of particular dates – typically, dates of particular events with a high empirical and/or theoretical significance – has, to a certain extent, an inevitable arbitrary nature. Moreover, an extended fieldwork would also address the need to gain in-depth knowledge about the empirical setting (see p. 195 for a discussion about the roles of time in longitudinal research) and would increase the opportunities to triangulate data sources – a technique discussed in the next subsection.

Therefore, the actual boundaries for the empiric time frame were decided as the research progressed, considering both the research objectives and the empirical issues which emerged during the fieldwork²⁵.

²⁵ Pettigrew (1995) mentioned other criteria, such as the researcher’s relationship with the case organisation and constraints related with funding or other resources (e.g., time). These factors did not

Temporal scope in the initial research design

As already mentioned, the fieldwork initiated in March 2005. Given the initial interest in ERPs and the long term, the retrospective component of the study should set the *start* of the relevant *empiric time frame no later than* the start of the SAP FI implementation - i.e., 1999. However, it soon became clear that understanding the antecedents of this particular change process required focusing further back in time. In 1995, one subsidiary implemented SAP financial modules and another one started implementing a complete (non-SAP) ERP package. In addition, it was considered that the acquisition of the Spanish subsidiary, in the first half of the decade, marked a substantial shift in IndCo (as the next chapter analyses). Additionally, insights about previous periods were obtained early in the fieldwork which should also be considered, mostly for a contextual purpose (as recommended in a holistic and processual approach).

The definition of the *end* of the empirical time frame was complicated for several reasons, related with: 1) the research approach (the adopted processual view, as discussed above); 2) the case study method itself (Yin, 2009); 3) the long-term emphasis of the research topic; 4) the empirics. As regards the latter in particular, there were no clear ‘cut-off’ end points which were also consistent with the long term focus, as regards both the consultants and the ERP ‘variables’. Even after the SAP FI implementation ended, in 2001, IT consultants continued in the company due to other

have a *direct* role in defining the boundaries for the *empiric* time frame. However, they had other types of influence. As described in this chapter, the researcher was denied the possibility to research a particular project; this prohibition eliminated this area of the empirical domain from the researcher’s analysis – a far more profound limitation than the mere definition of the empirical time frame. As regards time as resource, although the researcher substantially extended the originally planned fieldwork period, the time constraints inherent to a PhD also played a role in pressing for the conclusion of the fieldwork. By limiting the period of the *fieldwork*, time constraints had an *indirect* role in setting the cut-off *end* for the *empirical* time frame.

projects. In addition, the organisation had developed high levels of competence in SAP FI, internally; this enabled the continuous change of SAP FI (and the financial area) even without significant, and sometimes without any, assistance from consultants.

Some preliminary examples suffice to support the need to analyse *long term* processes of change involving the ERP and consultants, including the period of the fieldwork. E.g., the creation of a SSC and the gradual implementation of SAP logistic, production and product costing modules, continuously involved SAP FI and the financial area - although in highly varied extents and with highly varied contributions from consultants (ranging from key contributions to none)²⁶. Furthermore, *even if* consultants had totally left the company, *or even if* it was considered at a certain moment they ceased to have a significant involvement, the long term focus pushed to extend the empiric time frame beyond their departure time.

All the above reasons highlighted the relevance of the longitudinal component of the study (i.e., the study was clearly not exclusively retrospective) and promoted the extension of the empiric time frame (and, therefore, of the fieldwork period). Therefore, in the absence of clear indications based on theory or on the empirics, it was considered that the cut-off point should primarily be dictated by *fieldwork-related reasons*. The key methodological criterion would be the researcher's evaluation of having generated enough data to confirm interpretations and conclusions about the most important topics (data triangulation is discussed below) and to evaluate (and reject) major rival

²⁶ In an observed meeting with SAP consultants, a IT member thus described: "*FI was the first [module], it is generalised to all companies. But the information that was manually entered by accountants was not enough. So, there are many interfaces with external [i.e., non SAP] solutions related with purchasing, sales, stocks, salaries, which still haven't been totally replaced [by SAP modules]. We still have many plants with those [legacy] systems. (...) These interfaces were done by people from outside the company, who are no longer here*". This description and the context in which was conveyed (a meeting with consultants) highlight the on-going nature of the change processes related with the ERP and consultants, up to the time of the fieldwork (and, most likely, beyond).

hypotheses or explanations (Yin, 2009). However, research constraints also had to be considered. In particular, the time constraints of a PhD suggested that the fieldwork (and hence the empirical time frame) should be concluded by the end of 2006 or start of 2007, corresponding to a maximum fieldwork duration of nearly two years.

Therefore, a *'three-tier' interval* for the empirical time frame was conceived, based on 'core', 'extended' and 'holistic' empirical time frames, which diverged only as regards their 'starting' moment. The 'core' empirical time frame started when the implementation of SAP started being planned, i.e., 1998. The 'extended' empirical time frame started in the early 1990's to encompass key antecedents, both at an IT level (other IT projects) and at an organisational level (mostly, international acquisitions). The 'holistic' empirical time frame reached further into the past, without a specific starting date, encompassing the 'extended' time frame and a previous, 'contextual' period, to know the history of the organisation and some key actors, and understand some of the resulting organisational characteristics.

As regards the *end* of the temporal scope, the three intervals for the empirical time frame ('core', 'extended' and 'holistic') would have a common cut-off point, to be determined as the fieldwork progressed and mainly by fieldwork-related reasons.

The following figure 4.1 depicts the above temporal scope designs. The different intensities of the lines depicting the three empirical time frames (ranging from the 'Core', with a bold line, to the 'Holistic', with a traced line) represent the depth of the research regarding the empirics of each period. The greater length of all empirical time frames when compared to the planned fieldwork period (nearly two years) highlight the

importance of the retrospective component, when compared to the longitudinal component.

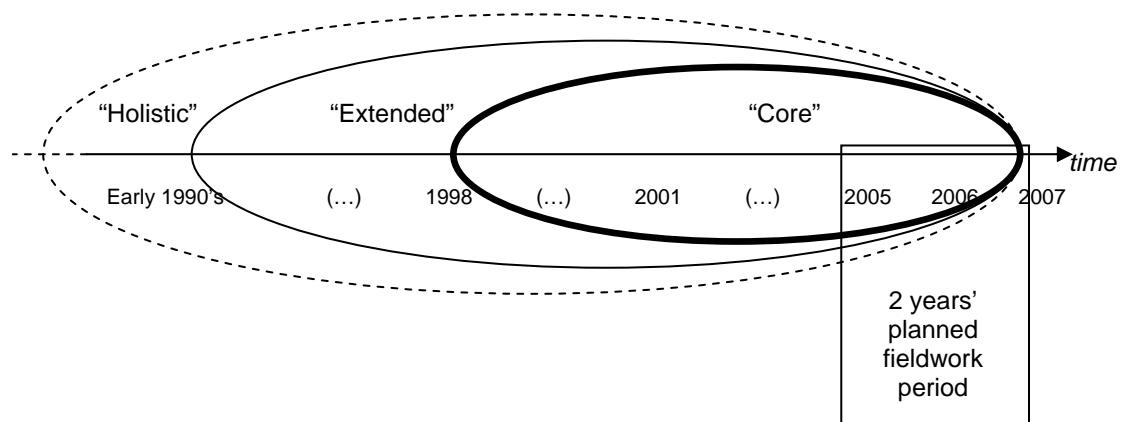


Figure 4.1: The 'three-tier' empirical time frames in the initial research design.
(Source: developed by the author)

The 'ups and downs' of case study research and the extension of the fieldwork period

At the end of 2005, the researcher formally requested permission to accompany the teams implementing the SAP product costing module (SAP CO-PC) across IndCo's plants. However, six months later, the company refused on the grounds that the organisational and geographical scope of the research was very broad (multiple countries), that it required accessing highly sensitive (production and financial) information and that the organisation had limited (time) resources to provide an adequate support to the research project.

This episode created substantial uncertainty in the project and caused important delays, for two main reasons. First, the contacts with the company were virtually suspended while the reply was awaited, not only to avoid developing research avenues which could end up not being fruitful, but mostly to avoid compromising the

researcher's acceptance in the organisation. The continuation of the contacts during this period, even if unrelated to the on-going implementation project, risked conveying the (false) impression that the researcher was attempting to advance the fieldwork before the authorisation was granted. As many authors commented about case study research, access to case organisations is always precarious and should be carefully preserved (e.g., Burns, 2000 and 2004; Ryan *et al.*, 2002; Scapens, 1990; Yin, 2009).

Second, after the refusal was communicated, the research project had to be substantially re-evaluated, especially because access to the organisation had been compromised beyond the scope of the refused proposal. In particular, the researcher evaluated whether already gathered empirical material could allow addressing the original research question. Up to that moment, the researcher had conducted 22 interviews, attended eight meetings and had spent six days in the IT open-space (additional interview details are provided below).

Upon this re-evaluation, the researcher considered that further fieldwork was necessary. The fieldwork was resumed in June 2006, but now restricted to the IT area and to the consultancy firm. However, the scarcity of previous insights from key areas as management control, the Shared Services Centre, non-IT top managers and plant level actors was preventing conclusions to be reached. By the end of 2006, the researcher decided to resume the contact with those areas, and it was felt that the only way to reopen access to non-IT areas was through a particularly senior manager. The researcher seized the opportunity to contact him during a public event and an interview was held in March 2007.

As explained in subsection 4.1.4, this interview was the trigger to highlight the role of power in key organisational changes and, subsequently, to ‘reconnect the dots’ through a re-examination of previous empirical insights; a few months later, a new research topic was adopted. The previous section has already re-examined the most fundamental aspects of research design, at the light of the new topic. Now, the temporal scope of the research is re-examined.

Temporal scope in the final research design

The new research topic highlighted the key events of SAP FI implementation, the CC relocation and the SSC creation, all occurred between 1998 and 2002. However, a clear insight was that there were on-going change processes as regards *all* of these innovations (and other related innovations) until the time of the fieldwork.

It became clear that issues of power were relevant at IndCo throughout its history and still at the present time. Key decisions and events between 1998 and 2002 fundamentally changed the networks of power at IndCo and clearly marked the emergence of a stronger organisational centre in Portugal, but their antecedents and consequences extended far beyond those years.

Adopting the new topic did *not* substantially change how the research temporal scope was conceived, but the *boundaries had to be redefined*. A ‘three-tier’ interval for the empirical time frame, similar to the one presented above and also based on ‘*core*’, ‘*extended*’ and ‘*holistic*’ empirical time frames, was developed. Again, they shared the same ‘cut-off’ point and only diverged among themselves as regards their ‘*starting*’ moment. There were also no major differences as regards the *actual* time frames –

although some criteria and some emphases were different to the ones in the initial research design.

The major difference of criteria to define the *start* of the ‘core’ empirical time frame was that the implementation of SAP was no longer the only criterion. In fact, it was considered that *the first preparatory steps to relocate the Corporate Centre* and *the acquisition of a large competitor* in 1998 also had to be included in the empiric time frame. While the first new criterion derived directly from the identification of the (relocated) corporate centre as one of the mechanisms of power at stake, the second criterion derived from the finding that the mentioned acquisition accentuated, even more, prevailing organisational characteristics and central actors’ limitations²⁷. This last criterion required a more detailed characterisation of the organisation at the time of the acquisition. Since all three events occurred in 1998, the starting year of the ‘core’ empirical time frame remained the same: 1998. However, the emphasis on the first year, including the emphasis in the ‘pre-acquisition’ stage, was reinforced (in addition, the ‘organisational’ scope was functionally and geographically widened).

As regards the ‘extended’ empiric time frame, it was kept at the early 1990’s, for the same reason: to encompass key antecedents, and in particular the acquisition in Spain in the early 1990’s. However, a higher importance was given to this ‘extended’ period, since it was understood that the organisational characteristics (and the limitations perceived by key central actors) by the end of the decade were not recent; instead, they derived from very long term organisational processes. Therefore, this new topic (and the permanent processual perspective) required a more profound

²⁷ As discussed in the next chapter, central actors perceived to have limited visibility and capacity to actually intervene, in a permanent and detailed way, in the decentralised, autonomous and diversified organisation that IndCo already was during the 1990’s. The 1998 large acquisition only accentuated such a scenario.

understanding of this precedent period, when compared to the initial research design. Finally, the ‘*holistic*’ empirical time frame was kept as reaching further into the past, without a specific starting date, for the same contextual purposes.

As regards the *end* of the temporal scope, and like in the initial design, the cut-off point of the three empirical time frames (‘core’, ‘extended’ and ‘holistic’) could not be unambiguously determined on empirical or theoretical grounds. Therefore, the end of the empirical time frames would be determined as the fieldwork progressed and mainly by fieldwork-related reasons, as discussed above. An additional fieldwork period of six months was planned, from June 2007 until approximately the end of 2007. However, the increasing time devoted to empirical analysis, theoretical development and write-up reduced the intensity of contacts and led to an extension of the fieldwork until April 2008²⁸.

Finally, it should be clarified that the study maintained a longitudinal nature, in spite of the strong retrospective component. The new research topic made the characterisation of the company in the late 1990’s particularly important, as well as various processes which had occurred almost a decade ago – a part of the retrospective component of the study. However, the longitudinal component of the study was always preserved, for two reasons. First, it derived from conscious efforts from the researcher, particularly given the long term focus and the processual perspective that had always underlain the study. And second, it derived from the interviewees themselves. Even when queried about past issues, interviewees frequently related them with more

²⁸ An additional interview was later conducted, in late 2009, to a former employee of the organisation. However, this interview can be considered to have occurred already beyond both the empirical time frame (especially because it focused exclusively on past events) and the fieldwork period.

contemporary issues, and even issues which they were facing on that very moment or would be facing in the future.

This permanent longitudinal nature of the study, and the relations between retrospective and contemporary insights, indeed allowed for the development of important conclusions. It highlighted that the issues being researched were actually fundamental, long term, continuous and never totally settled. This conclusion reinforced the validity and relevance of two adopted perspectives. First, of the adoption of a processual approach. Second, of the adoption of the Clegg's (1989) ANT-based insights, arguing that although fixity of structural features is possible, they have an inevitably temporary and contestable nature. This conclusion is resumed and developed in later chapters. As regards the current chapter, the key message resides in highlighting that the combination of both retrospective and longitudinal components was indeed crucial to develop such insight.

The figure below depicts the 'three-tier' empirical time frames considered in the *final* research design, as well as the *actual* fieldwork period.

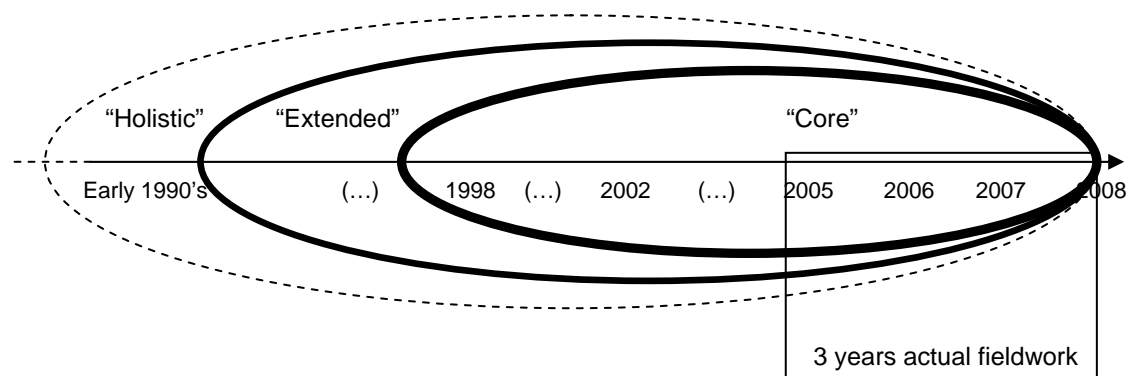


Figure 4.2: The 'three-tier' empirical time frames in the final research design and actual fieldwork period. (Source: developed by the author)

The above figure differs in several, though small, aspects as regards the previous one, about the initial research design. The ‘core’ empirical time frame now clearly encompasses 1998, given the importance of that year to the new research topic. The ‘extended’ empirical time frame is now represented with a stronger line, to convey the greater importance of the previous period (from the early 1990’s). The three empirical time frames now all end in April 2008 - the end of the *actual* framework period.

The fieldwork actually extended for a period of about three years, from March 2005 to April 2008. The contact instances with the field were rather well distributed along the three years’ period, although the fieldwork was more intensive in certain periods (interview details are provided below). Furthermore, the fieldwork had a highly recurrent characteristic in extended case studies in which the researcher remains mostly an outsider to the field (rather than an insider and, in particular, as a participant): the fieldwork was not *continuous* all through the 3 years, hence having a sporadic nature (Otley and Berry, 1994).

4.2.1.3 The anonymity of the case organisation and its actors: a reflection

Both the entire case and its informants are made anonymous - a highly common option in case study research, particularly within Europe, as an overview of major Europe-based academic journals reveals. The degree of acceptance of the option for anonymity varies across authors: while some accept it with no major objections, considering the potential advantages (e.g., Scapens, 1990), other recommend using it only as a last resort and should compromise alternatives be impossible (e.g., Yin, 2009). It should be noted, however, that one of the justifications for anonymity that even Yin accepted was quite relevant, when the fieldwork started. Anonymity is justifiable when the “issuance of the final case report may affect the subsequent actions of those that

were studied” (Yin, 2009, p. 181). A case study about the MAC area of an organisation may potentially deal with sensitive information, which if revealed could affect the organisation itself, namely through the actions of other organisations which gained access to that (until then secret) information (Scapens, 1990).

At the start of the case study, it was unclear the extent to which the researcher would require access to sensitive information. Therefore, the researcher accepted the compromise to maintain anonymity, hence facilitating a greater access to interviewees, documentation and even observational instances (e.g., meetings, presentations, informal events, presence in the organisation open-office).

In order to preserve the organisation anonymity, some information is omitted or disguised, such as the names of the industry and organisations, the products, most countries and precise dates as regards events more likely to be publicly known. As concerns geographical information, only Portugal, Spain and country ‘C’ are identified; as regards other countries, only general information required for the case analysis is provided. Portugal and Spain are identified for three reasons. First, the fact that the author is Portuguese would (correctly) suggest that the case company was based in Portugal. Second, the large number of references to these two countries implies that anonymously identifying them in a coded form would significantly worsen the text readability. Third, and importantly, it is believed that this limited disclosure does not compromise the anonymity of the company. A third country is identified in a coded form (country C) to allow singling out a relevant country to this organisation, while preserving anonymity.

Likewise, the researcher also considered that maintaining interviewees' anonymity could potentiate a greater openness during the interviews and hence potentially increase the insights obtained. (Scapens, 1990) As such, interviewees' names are not revealed and their organisational position (a relevant aspect when analysing their perceptions and actions) is also only described in broad terms (see p. 262 about the classification of interviewees). Finally, it was attempted that the content of the quoted comments did not allow the inference of the respondent by actors of the organisation who read the case, in particular if the content was considered as potentially sensitive (Scapens, 1990; Yin, 2009). Occasionally, this implied a minor editing of the quotations, ensuring not to compromise their meaning.

These anonymity agreements implied the exclusion of information which could denounce the company and the respondents' identity but which was not essential to the understanding of the empirical context and to the analyses, conclusions and theoretical development issues. The inclusion of such information could arguably be considered to enrich the case, in particular by allowing 'thickening' the description in certain dimensions (e.g., by detailing the broader contextualisation of the organisation). However, it was considered at the start of the fieldwork – and it still is, after its end – that the greater access potentiated by the anonymity agreement actually facilitated developing 'thicker' descriptions of the detailed events and actors' perceptions and strategies (Geertz, 1973) and a deeper understanding of the case (Maxwell, 1992). Greater access under the cover of anonymity, overall, benefited the case by allowing 'thick' analyses of issues which were indeed core ones, and hence benefited the case 'plausibility' and 'trustworthiness', which Ahrens and Chapman (2006) considered to be the crucial criteria to evaluate qualitative research.

4.2.2 TECHNIQUES TO GENERATE INFORMATION

Case study researchers can potentially use a large number of techniques to collect information – or (more accurately, considering the acknowledged role of the investigator in the research process) *generate* information from the empirical domain. As common sources of information, Yin (2009) highlighted documentation, archival records, interviews, direct observation, participant-observation and physical artefacts.

This section starts by reflecting on two preliminary issues. First, it analyses the potential and limitations of information sources (in particular, interviews), considering the adopted Foucauldian and ANT research approaches, when compared to the initial interpretative approach. Second, it briefly discusses triangulation between and within the various information sources. The remainder of this section analyses the various techniques used to generate information: the researcher analysed documentation; observed socio-technical interactions and material aspects; observed key physical artefacts; and interviewed individuals who were, or had been, part of the organisation actor-network.

4.2.2.1 Interpretive research, Foucault and ANT: specific concerns to research power

Ribeiro (2003) reflected on the consequences that researching power in a Foucauldian and ANT perspective (rather than in a purely interpretive way) should have on epistemology and, therefore, on research methods. “An important epistemological aspect is that the description of strategies of power should not be solely based on actors’ accounts of the strategies they *themselves* conduct, of their intentions, objectives and actions” (p. 155, emphasis in the original). As Ribeiro noted, observing actors’

strategies of power is often not possible (and this was certainly the case as regards the retrospective component of this research); indeed, ANT's recommendation of "following the actors" does not mean 'being with them' when they undertake their strategies" (p. 281). As Ribeiro (2003) commented, 'being with the actors' "when they undertake their strategies (...) would indeed be inconsistent, as the presence of a researcher would probably constitute a factor hindering those strategies" (p. 281-2). As such, the focus should be on "the collection of the 'traces' they leave behind them" (p. 155), such as "material traces" and "memories about events" (p. 156).

The fieldwork included observation of socio-technical interactions and technical artefacts and gathering of documentation (some of which constituted the mentioned "material traces"); however, it must be recognised that most insights about the strategies of power were obtained through the conducted interviews (the "memories about events"). The minor (albeit not unimportant) resort to *observations* was strongly related with the major retrospective research component, focusing on past events (Creswell, 2003): observation of socio-technical interactions is particularly adequate for longitudinal ('real time') research, rather than for retrospective research.

In turn, the limited resort to *documentation* was also related with the topic of power itself: it is plausible that important parts of power strategies do not get to be explicitly stated in documentation. In addition, the limited resort to documentation was also related to a characteristic of the analysed IT projects: apart from their technical aspects, they were little documented. Right in the second interview at the case organisation, with a senior IT member, when the grounds of cooperation were discussed, the researcher expressed interest in obtaining documentation related with the SAP FI project. Although the respondent accepted, and later facilitated, the access to

documentation, he informed that the (not many) documents which existed were mainly technical, rather than conceptual or about pursued objectives. Therefore, it was suggested that access to such non-technical information could virtually only be obtained through interviews, as means to obtain access to such information “from our [respondents’] heads”.²⁹

However, and in spite of the important role of interviews to obtain information, the researcher’s interpretation did not rely *solely* on the accounts of the very actors who promoted the change processes, and not even *solely* on the accounts of the actors who were somehow *directly* involved in those processes. Rather, interviews were “ways of collecting traces left *on others’ memory*” (Ribeiro, 2003, p. 157, emphasis in the original), which were then triangulated with insights obtained through other sources (including, but not restricted to, other interviews).

This fieldwork strategy incorporated particular concerns raised by Foucauldian and ANT perspectives. However, the general approach was mostly maintained: e.g., the interview technique is still adequate and understanding the interviewees’ meanings is still relevant – subject to the above *additional* concerns. Importantly, the incorporation of these *additional* concerns should actually also underlie an interpretive approach.

²⁹ The hypothesis that the respondent might be merely avoiding granting access to documentation was rejected during the fieldwork. First, IndCo’s actors indeed granted access to documentation – mostly *technical* documentation. Second, the scarcity of *non-technical* documentation was later corroborated by other sources, including by sources outside the organisation. Consultants argued (and some IT actors recognised) that the IT area of IndCo traditionally had a very informal – yet effective – way to achieve coordination. Furthermore, as analysed in the next chapter, the SAP FI project had a narrow, technical scope, particularly in its start. The project scope was mostly internally defined, with consultants being given little possibility to introduce broader organisational changes and having, fundamentally, an SAP *technical* consultancy role. As such, consultants did not produce the amount of structured, non-technical information (e.g., regarding business analysis, client needs, model analysis) which they typically do when they play a wider role. These two factors (informal internal coordination and very limited intervention from consultants regarding non-technical issues) contributed to scarcity of documentation regarding non-technical issues. Even so, all the non-technical documentation obtained (either through IndCo’s actors or consultants) had been produced by the consultancy firm. Therefore, the respondent’s indication “you’ll need to get what you want mostly from our heads, through interviews, rather than from well structured documentation” proved to indeed reflect the actual scarcity of documentation of a non-technical nature.

Questioning, scrutiny and triangulation of interviewees' accounts, in particular when it refers to strategies in which they themselves were involved, is indeed positive to any research endorsing an interpretive approach³⁰.

4.2.2.2 Data triangulation across and within techniques to generate information: potentialities and limitations

Triangulation between *data* from different sources and generated through different techniques is a recurrently emphasised requirement of qualitative research (e.g., Modell, 2005; Yin, 2009) (*theoretical* triangulation was analysed in subsection 4.1.4). Data triangulation efforts have actually a dual role, since they “help the researcher to generate a rich source of field data with internal checks of its validity” (Hopper and Hoque, 2006, p. 482). In this study, generated data was triangulated, increasing the case internal validity, reliability and hence credibility - although without the unrealistic assumption (and presumption) that an ‘objective’ description of reality would be achieved, as analysed next.

Data triangulation efforts

In this study, drawing on diversified information sources and techniques contributed to data triangulation (Creswell, 2003). The concerns raised by the Foucauldian and ANT approach about reliance on interviews and the proposed remedial solutions (as discussed above in this subsection) are such an example. The remainder of this subsection provides additional examples of such triangulation efforts.

³⁰ Naturally, these *increased* concerns were only incorporated in *subsequent* fieldwork. Previously gathered empirical material was reviewed according to these increased concerns. In addition, subsequent fieldwork was tailored to explore the insights previously developed, at the light of these increased concerns. The opportunity to contact many interviewees again in a late stage of the fieldwork (as analysed below) potentiated this validation.

Furthermore, significant efforts were made to triangulate information generated *within* (rather than across) a given technique. E.g., the interview technique was applied to multiple respondents and in multiple occasions, therefore generating information whose consistency was carefully checked. Naturally, such consistency was also checked even within each particular interview event. Specific characteristics of the interviewing process which improved triangulation are discussed below in this subsection, when the interviewing technique is analysed (e.g., various respondents were interviewed multiple times across long periods).

Limitations of data triangulation and the alternative criteria of plausibility and trustworthiness: striking a balance between objectivism and subjectivism

As mentioned, data triangulation is often seen as central to validity. However, the very concept of validity in qualitative research is highly controversial and discussed (Creswell, 2003) and, in addition, sometimes not made explicit (Maxwell, 1992). Authors like Ahrens and Chapman (2006) argued that “triangulation is a problematic concept for the conduct and assessment of qualitative field studies”. First, the concept of triangulation has an underlying “presumption of an objective reality” (p. 834), “borrowed from positivistic methodology” (p. 819). The acknowledgement, earlier in this chapter, that such objective vision of the social world is unattainable, implies the acknowledgement of a degree of subjectivism and hence challenges such presumption. Second, contradictory empirical data (either verbal or non-verbal, written or unwritten, ‘material’ or ‘social’) do not *necessarily* represent ‘anomalies’; they may be mere consequences of a diversified and complex empirical field, populated by actors with multiple and diversified perspectives. As such, generating (apparently) contradictory data may indeed be a powerful way for a researcher to probe deeper. On the other hand,

contradictory data may indeed be an ‘anomaly’, in particular as regards issues in which a higher degree of ‘objectivism’ is expectable (e.g., dates or people involved in a particular process). Even though those more ‘objective’ issues may not be the core of a qualitative study, they are by no means irrelevant, either. On-going fieldwork should attempt to ‘solve’ those issues through data triangulation. “What we have a right to expect is that (...) two descriptions be compatible” (Becker, 1970, p. 20, in Ahrens and Chapman, 2006, p. 833)³¹. Given these two perspectives, there is a need to clarify the researcher’s position.

Ahrens and Chapman’s (2006) strong opposition to the concept of triangulation may be considered as reflecting a rather extreme form of subjectivism (Tomkins and Groves, 1983). However, their objections are grounded. While in this study subjectivism is considered an unavoidable, overarching characteristic of researching social phenomena, the possibility of some largely objective features is also accepted. While *interpretation* is considered to be an inescapable characteristic of research, the concept of *observation* cannot be made redundant, either (see the start of this chapter). Hence, Ahrens and Chapman’s position is considered, above all, as a pertinent call of attention against the “misleading” illusion of “certainty (...) gained in the capture of an objective reality” (p. 834) which is (typically only) implicit in the concept of triangulation³². Hence the acceptance of Ahrens and Chapman’s (2006) proposal that validity and reliability in qualitative field studies should be assessed primarily by their *plausibility and trustworthiness*, rather than absolute (yet likely either illusory or

³¹ This quote, already cited when discussing theoretical triangulation, referred to compatibility between qualitative studies about the same organisational setting; however, it also expresses the compatibility that should be present between accounts about the same organisational setting, in particular when they deal with issues with a more objective nature, as discussed above.

³² Yin’s (2009, p. 117) figure depicting multiple sources of evidence converging towards a “Fact” highlights this underlying assumption of the possibility to achieve a single, objective and true view of social phenomena.

unattainable) data convergence derived from triangulation (see also Creswell, 2003, who added the similar terms ‘authenticity’ and ‘credibility’).

Therefore, the selection and application of techniques to generate information during the fieldwork attempted to strike a balance between objectivism and subjectivism. On one hand, it was accepted a (not naïf) possibility and even desirability of data triangulation in a search for convergence and consistency as regards (mostly) objective issues. On the other hand, the case plausibility and trustworthiness was built by providing detailed information about the study, as regards its empiric, theoretical, analytical and methodological support. I.e., the case *plausibility and trustworthiness* was built *beyond* the particular chapter on research design, and was also built on the chapters on the case study description, analysis and theoretical contribution. This information included the study’s assumptions, choices, steps, advances and drawbacks, on-going hypotheses which were later rejected or confirmed. In order to build a convincing empirical and theoretical argument, there were continuous efforts to generate “[f]urther data (...) [to] support or question the relations made between the initial data and the argument” (Ahrens and Chapman, 2006, p. 834). With such detailed data, it is expected that the case can be considered *plausible* and *trustworthy* – but there is no claim to be *objective*.

4.2.2.3 Documentation analysis

The analysis of documentation is frequently mentioned as a virtually obligatory feature of any case study, typically to “corroborate and augment evidence from other sources” (Yin, 2009, p. 103). From an ANT perspective, as discussed above, documentation may represent ‘material traces’ left by the actors when carrying out their activities. However, this ‘objectivity’ suggested by the material nature of documentation

should not be taken as a synonym for accuracy and freedom from reporting bias (e.g., Creswell, 2003)

Both *publicly available* and *private* documentation was analysed. *Publicly available* documentation referred to the organisation, its holding company or individual actors. It included the websites and financial reports and releases of IndCo and its group; an internal magazine of IndCo's group; general and industry-specific publications and business websites; and three academic studies. Information about the industry, including a characterisation of the markets, the types of products and even the production process, was also gathered from the internet, in particular from the organisation's website; documents from the European Commission about some of IndCo's markets were also examined.

Private documentation included presentations, proposals, quality plans and progress reports about key technical projects (SAP financial accounting and SAP production) and organisational projects (the creation of the Shared Services Centre). Internal SAP manuals were also obtained. Private documentation was provided either by the organisation or by the consultancy firm (upon authorisation of the client).

Documentation was most useful to provide both contextual and detailed information and orient subsequent inquiries from other sources, and it was particularly useful to indicate detailed dates of the various stages of the projects (e.g., the dates of the various roll-outs of the Shared Services Centre), the people involved and the detailed scope of the projects.

4.2.2.4 Observation (and interpretation) of human actors in socio-technical interactions

The ‘observation’ carried out was, essentially, *non participant* observation - and, it should added, non-participant *interpretation* (for simplification purposes, the following text usually only refers to ‘observation’, the most common term in the literature on research methodology). The researcher therefore had the role of a complete observer (Creswell, 2003). The observation is considered to have had a highly non obtrusive nature, not affecting the actors in their daily interactions and, more broadly, not affecting the natural setting being directly observed. The following analysis focuses on the observation of *human* actors in socio-technical interactions, i.e., interactions between human actors occurring within a particular technical environment and between human and technological actors. Then, the following part in this subsection focuses on artefacts – which may be, in ANT terms, considered as *non-human* actors, as discussed below. However, as it will be noticeable, observation and interpretation usually encompassed human and non-human actors simultaneously and in interaction (socio-technical interactions).

Observation of *human* actors took place in various temporal and spatial settings, through a wide range of formal or casual activities. As *formal* observational activities, early in the fieldwork, the researcher observed seven *meetings* between consultants³³ and IndCo’s IT members, from both the ‘functional’ and ‘technical’ teams³⁴. SAP

³³ Nearly all consultants were from SAP. One member from the consultancy firm cooperating with the researcher was present in one of the meetings, as he had an in-depth and on-going involvement in IndCo’s SAP projects. This consultant was later interviewed.

³⁴ The IT department in IndCo’s headquarters (the ‘Global IT’ team) has two main areas. The ‘functional’ team is focused primarily on business processes and was structured around particular SAP modules (at the time, financial, logistic and production). The ‘technical’ team is focused primarily on core IT issues, such as databases, IT architecture and IT infra-structure.

consultants had been called to advise on an SAP upgrade³⁵. Since most SAP consultants attending these meetings did not know IndCo's SAP system, this consultancy assignment required that IndCo's IT employees made a number of presentations to SAP consultants, in which they explained how SAP had been implemented in IndCo and discussed upgrade issues. Each meeting involved between one and five IT members and one or two consultants. The meetings consisted in a mixture of oral descriptions and interactive discussions and of demonstrations of the implemented SAP system (and other related IT solutions). The researcher also attended a final meeting with 17 participants, where the consultants' diagnosis and recommendations about the upgrade were presented and discussed. Finally, later in the fieldwork, the researcher also attended a meeting, organised by the Shared Services Centre, in which four members of this centre described the reporting process to a newly hired IT member, resorting to a demonstration of the various tools (both SAP and non-SAP).

The researcher was mainly a silent observer in these meetings, intervening only occasionally when a particular topic raised an especial interest. Observing these series of long meetings allowed the researcher to obtain insights about the perspectives, concerns and interests of the various parties, in a natural setting and in a relatively non-obtrusive way. In addition, these meetings also allowed for the observation of SAP as an artefact being mobilised by human actors for particular purposes, as discussed next.

As *casual, informal* observation activities, during the six working days which the meetings with the consultants took, the researcher was located, in-between meetings,

³⁵ At the time, IndCo had SAP version 4.6c and was contemplating various upgrade options (SAP 2004b). Researching this upgrade process could be, in itself, an interesting (and emergent) research topic (e.g., explaining why it was mainly considered as a technical upgrade by IndCo's actors; why technical concerns dominated the project; and why enhancements in the financial area were systematically downplayed or rejected by IndCo's IT actors). However, this topic has not been developed.

in the *open space office* of the ‘functional’ teams supporting SAP. The researcher spent some days at a desk next to the SAP FI team, and others next to the SAP Sales and Distribution (SD) team. He also regularly had *lunch and coffee breaks* in the organisation canteen, together with the IT members and the consultants. These instances were useful to observe interactions, both between IT actors and between IT and non-IT actors (e.g., members of the Shared Services Centre and consultants). Additionally, these instances (along with occasional conversations, to be analysed below as a type of interview) facilitated the acceptance of the researcher in the organisation and the development of personal relations with organisational members. Later, during the visits to the plants, the researcher also had lunch with interviewees and individuals who were not interviewed.

In addition to the benefits mentioned above, attending these meetings and having these informal contacts was particularly important in the exploratory stage of the fieldwork (Marshall and Rossman, 1995). It allowed the researcher to become familiarised with the (social and technical) natural setting of the organisation, including the particular language of organisational actors. Furthermore, it allowed sensitising the researcher about important organisational aspects. It allowed identifying, e.g.: ‘hot’, contemporary issues (e.g., the imminent start of the project to implement SAP product costing project); perceived important problems (e.g., persistent problems of lack of data reliability and consistency); organisational tensions (e.g.: between IT, users and consultants, and even within the IT area). These early insights, in an exploratory stage of fieldwork, were important to uncover potential research avenues and improve the conduction of other research methods (e.g., by revealing basic organisation-specific knowledge during the subsequent interviews).

In total, the researcher spent six days in the IT open space. During these days, the researcher attended eight meetings (the seven smaller-scale meetings plus the large final meeting), over more than twenty hours. The additional meeting organised by the Shared Services Centre took nearly three hours. Most of the meetings were recorded and, according to their perceived research relevance, three of them (the two about SAP FI and the final meeting) were transcribed, almost in full, in a total of over nine hours. Annotations were taken as appropriate³⁶, either in paper or, preferably, in a laptop³⁷.

4.2.2.5 Observation (and interpretation) of artefacts

Yin exemplified “a physical or cultural artifact” as “a technological device, a tool or instrument, a work of art, or some other physical evidence” (Yin, 2009, p. 113). However, an Actor-Network Theory perspective has a particular concept of artefact, taking issue of a putative absolute distinction between the ‘social’ and the ‘material’. As mentioned in section 3.4, in an ANT perspective, Law (1997, p. 4) argued that “relations of other [putatively non-social] materials are inserted into what we sometimes call ‘the social’” – like, symmetrically, “social relations aren’t simply social. Instead they are inserted into other materials”. “Relations (...) take the forms that they do, if they do (and they do so only contingently and often enough precariously) because they are performed, held in place, in a variety of different media: words; bodies; texts; machines; buildings. All mixed up. Materially heterogeneous”. Endorsing an ANT

³⁶ The annotations extracted key aspects emerging during the several hours long meetings - which, because they unfolded in a natural setting and virtually unaffected by the researcher, were not exclusively directed to address the researcher’s areas of interest. These characteristics of most meetings made full transcription of their recordings unnecessary, and only annotations were used instead. Resort to the actual recordings was made when appropriate to complete, clarify and confirm annotations and recall particular passages.

³⁷ Using a laptop allowed greater speed than if notes were hand-written. It was considered that the IT environment of these meetings (in which various participants used laptops) and the background and observer role of the researcher (who typically did not intervene in the meetings) allowed the researcher’s usage of a laptop to be accepted as natural and not to interfere with the researcher’s relation with the other participants.

perspective, ‘artefacts’ were conceived as potentially constituting non-human actors (actants), considering their potential capacity to produce effects through socio-technical interactions – i.e., their potential inclusion as a part of the actor-network. E.g., as analysed in section 3.4, an Actor-Network is a quasi-object and SAP itself has been described as a quasi-object (Quattrone and Hopper, 2006). Two types of artefacts are analysed next: IndCo’s implemented systems; and non-IT artefacts.

IndCo’s implemented IT solutions – in particular, SAP

The key observed artefacts were IndCo’s implemented information systems. These observations were done in various occasions. As described above, in the various meetings the researcher attended, SAP and non-SAP systems were the basis for the presentations organised by IndCo’s actors to inform other actors (rather than the researcher) about implemented IT solutions in IndCo. In addition, one interview was organised mainly to present SAP’s production modules exclusively to the researcher. Finally, in some meetings occurring at the interviewee’s desk (at the Shared Service Centre and at a plant), interviewees mobilised SAP and other systems to describe aspects like accounting processes or accounts structures.

Observation instances were rather diversified as regards the degree of tailoring to the researcher’s interests, but overall they were extremely useful. When the presentations were organised to meet the information needs of third parties, sometimes they focused on issues which were not a main concern to the researcher (e.g., SAP’s production modules); in other occasions, they became highly technical, beyond the researcher’s knowledge. However, this was the exception, rather than the rule.

Moreover, even from non-core presentations and from technical discussions, relevant insights were obtained.

As such, presentations to third parties based on IT (in particular, SAP) mobilisation by IndCo's actors were indeed an invaluable way to obtain both a general overview of IT solutions and architecture and detailed technical insights. Importantly, they allowed this without requiring an extensive time investment from the case organisation actors – which would likely be unfeasible, at least to achieve the in-depth analysis enabled by the presentations.

Finally, apparently minor IT details were considered to reflect significant organisational issues. For example, the business cards (one of the non-IT artefacts analysed next) that interviewees provided when the fieldwork commenced still exhibited a recently-abandoned logic for the email service. Email addresses changed their termination from “IndCo_group.com” to “IndCo.com”, reflecting the reduction of the (historically high) influence of IndCo's group over IndCo.

Non-IT artefacts

Non-IT artefacts also conveyed relevant insights. These observation opportunities arose in a mix of intended and unintended ways, during the interviews and beyond them. The ensuing text merely provides some examples, providing a summary explanation of their research relevance.

A business card, exchanged at the start of the interview with a plant director, was an artefact upon which the interviewee drew particular attention. He mentioned that the inclusion of IndCo's name and logo, next to the name of the subsidiary name, had

happened only recently – a change dictated by IndCo’s central structures and which was interpreted as a manifestation of the increasing relevance and visibility of IndCo’s organisational centre.³⁸

Common areas and offices where the interviews took place, and even the trips to the plants (as regards road signs), also provided research insights. E.g., the researcher paid attention to the references to IndCo’s name (rather than, or in addition to, local subsidiaries’ name) in the posters and in the product samples hung on the walls. Different plants (including a closed-down plant observed from the outside, beyond the planned visits) had different names and logos in the large signs outside the plants, which suggested a different balance between the importance of the local and central levels of the organisation. Photos hung on walls also revealed what the plants looked in the past (as regards the buildings and, in particular, as regards the names and logos in the outside signs), allowing the comparison with the present artefacts and the interpretation of identified changes.

As mentioned, observation – and interpretation - even included road signs, along the local roads leading to one of the plants. These examples highlight that meaningful artefacts can be situated outside the organisation physical boundaries and reached beyond planned research instances. Moreover, these examples also highlight that observation should have a holistic concern, in line with the adopted holistic ontological and epistemological perspectives.

³⁸ This example interestingly highlights that the researcher’s interpretation of the artefact did not rely solely on independent observation. Rather, the interpretation was shaped by the way the human actor mobilised the artefact, suggesting the organisational significance of a small detail which would otherwise go unnoticed by the researcher – particularly because the researcher would have no possibility to know which names and logos had been previously included in the business cards.

4.2.2.6 Interviews

General considerations about the interviewing technique

Interviews were a key source of information throughout the fieldwork, as typical in case studies (Yin, 2009). As discussed at the start of this subsection, in spite of the emergent adoption of a Foucauldian and ANT approach, the interviewing technique retained a key place in the research. The interview technique was hence both a way to collect ‘traces’ of actions of key members left on *other members’* memory and (in an interpretative research aim not incompatible with a Foucauldian and ANT approach) to explore the meanings attributed by interviewees to organisational phenomena.

Interviews were in-depth, face-to-face and almost always individual. The objective was to ask interviewees about “facts of matter as well as their opinions about them (...) and even ask the interviewee to propose her or his insights into certain occurrences” (Yin, 2009, p. 106). In general terms, they were fundamental to “provide an understanding of complex situations” (Moll *et al.*, 2006b). Such insights were then used to orient subsequent fieldwork. To achieve these objectives, interviews were *semi-structured* and *open-ended*, mostly as guided conversations. Interviewees could answer in their own words and were allowed to raise new issues, *rather than* being restricted to a structured and ordered set of queries (Lodh and Gaffikin, 2003; Moll *et al.*, 2006b; Yin, 2009) with predetermined response categories (Marshall and Rossman, 1995). Occasionally, in some cases, previously obtained documents were emailed to respondents prior to the interview or exhibited at the time of the interview, identifying specific issues to be discussed. This was particularly relevant concerning SAP implementation plans, in order to research areas where the actual implementation (mobilisation) process differed from initial plans; since a considerable number of years

had passed, reviewing the original plan allowed the interviewee to recall it and better identify areas of divergence.

These interviews may be considered to fit the “*general interview guide approach*” (Marshall and Rossman, 1995, p. 80, emphasis added). Like in the general interview guide approach, questions were intended to obtain information from respondents about recurrent topics about the case *and* they were tailored to *each* respondent’s particular position, experience and involvement with the research topic. These two orientations shaped what Yin (2009) labelled “level 1” questions, those questions which are asked to specific interviewees and which reflect the “level 2” questions (the lines of inquiry of the case).

However, a new expression to characterise the adopted interview guide approach is here suggested: a ‘*rolling* interview guide approach’. In addition to the concerns of obtaining information about recurrent case topics in an interviewee-specific way, interview scripts (the ‘level 1’ questions) gradually evolved to reflect progresses in the fieldwork and case analysis (a particular consequence of using previous insights to orient the fieldwork, as mentioned above). Specifically, new questions were *incorporated* into a particular interview script to address previously developed insights and interpretations - to corroborate, reject and/or develop them. Moreover, previous questions were *deleted* from the script, when a particular topic was abandoned because it was considered that either it had already been sufficiently researched and clarified or, alternatively, it was not sufficiently relevant. This concern of *deleting* particular previous questions was crucial, since although interview time was usually quite reasonable (in average, one hour and three quarters), it is never unlimited. In addition, interview time is often found to be insufficient to analyse all topics from a given

interview script when greater latitude is conceded to the interviewee to determine the course of the interview and to pursue unplanned (yet potentially relevant) topics³⁹.

As such, the proposed expression ‘*rolling interview guide approach*’ encapsulates: 1) the existence of recurrent topics across interviews; 2) the tailoring of interviews to each respondent; *and* 3) the continuous critical analysis of the pertinence of including or excluding each particular topic, as a consequence of fieldwork and analytical progress. This approach, of course, merely reflects a particular concern within the ‘general interview guide approach’ (rather than being an opposite or exclusive alternative to it), to dynamically shape each interviewing encounter to reflect the dynamic, wider research process – a benefit which is particularly relevant in extended, longitudinal fieldwork such as the one of this research.

In addition, the researcher held *conversations* with several actors, in particular (but not only) during the six days in which he stayed in the company (see above). These conversations approached the concept of an “informal conversation interview” (Marshall and Rossman, 1995, p. 80). However, the opportunistic (unplanned) nature and short time of these conversations made them fall short of the requirements which would be necessary were they to take a more prominent role for gathering information. These conversations ranged from highly informal (e.g., during work breaks, often as a general conversation) to somewhat more formal (e.g., after the final meeting between IndCo’s IT members and consultants, a conversion was held with a senior IT member, who conveyed his views and strategies regarding the meeting). Typically, questions were not previously selected; sometimes, there were no questions at all. These conversations contributed to obtain relevant insights and to a greater acceptance of the

³⁹ As analysed below, the high percentage of respondents who were interviewed multiple times often allowed overcoming the problem of not being able to cover all topics planned for a given interview.

researcher among organisational actors, hence facilitating subsequent fieldwork (along the lines discussed in 4.2.2.3 “Direct observation”). Finally, some *phone call conversations* primarily directed to organise the fieldwork ended up by eliciting relevant insights, when these conversations evolved into other topics beyond the immediate, original purpose.

The interviewees: selection criteria, identification and approach

The initial interviews to obtain the agreement to cooperate from the consultancy firm and from the case organisation were held, respectively, with a senior consultant and a senior IT Director (see the start of this section). As mentioned, the latter become, in practice, the ‘representative’ of the organisation and a key informant.

Subsequent interviewees were fundamentally selected based on purposeful, *snowball sampling* (Gil, 2007; Wloszczak, 2000). Given the initial research topic (long term interactions between the ERP, consultants and MAC), two main requirements defined the interviewees’ profile: having been involved with the ERP system⁴⁰; have a long-term involvement with the company, in order to potentially have relevant insights about the long-term processes under research. Actors might have been involved with the ERP in two main ways. First, they might be, or have been, *designers* of the system - typically, but not exclusively, IT actors. Second, they might be, or have been, *users* of the system; however, given the large number of users, the target were actors from the accounting area and other actors who, in spite of not hierarchically belonging to the management control department, were nonetheless involved in management control

⁴⁰ The requirement of involvement with the ERP included all actors from the accounting and management control area – even though the latter’s work was fundamentally based on non-SAP solutions, which mostly drew on SAP data.

(Dechow and Mouritsen, 2005); this last criterion led to the inclusion of various directors from both financial and non-financial areas.

Having had a direct contact with the consultants was not a necessary condition to be a potential interviewee. In fact, actors who might not have had direct contact with consultants could still provide relevant insights about the other two factors (the ERP and MAC). In addition, even actors with no direct access to consultants (e.g., because the IT teams intermediated the contacts between them and the consultants) were not oblivious of the consultants' role. Therefore, their perceptions about this topic were not irrelevant to the research, although they were awarded a less prominent importance when compared to the perceptions of the actors who had had direct contact with the consultants.

According to this profile, the case company 'representative' initially suggested six actors, to be approached in the first round of (mostly exploratory) interviews. These initial six interviewees were directors with different levels of seniority and from the following areas: Management Control; the Shared Services Centre; Sales (two actors with different geographical responsibilities); IT; and the Business Processes and Organisation department. Either during or after the interviews, several of these respondents indicated other members (both from within and outside their teams) with potentially relevant insights and facilitated the scheduling of interviews involving their team members. In some cases, the snowball sampling technique was applied again to these lower level members – although their lower hierarchical level limited their capacity to take the initiative to promote meetings with other members. As such, when potentially relevant actors were identified during the interviews with lower level

respondents, the researcher sometimes had to contact the higher level respondents again, in order to authorise and facilitate meetings with those actors.

Another important way to identify potential interviewees within the IT area was the researcher's attendance of meetings, right at the start of the fieldwork (see above). The researcher then asked their hierarchical superior for authorisation to schedule an interview.

Contacts with three actors in *particularly high hierarchical positions* and long term involvement with the company and/or its group were also obtained: a particular senior manager, a senior group director and a former senior group advisor. Contacts with *plant level staff* were also considered to be invaluable, particularly when issues of power took a central stage in the research. The criterion to select the plants to be visited was (beyond being in Portugal or in Spain, due to access limitations) that their plant director should have a long history in the company, so that they could provide first-hand insights regarding the empirical time frame, which starts in the early 1990's. Newly-hired plant directors would be of little use to provide insights about the organisation's history.

Finally, as regards the *consultancy firm*, its 'representative' directly promoted initial meetings with other involved consultants. The reduced number of consultants with relevant involvement and who were still in the company limited the use of the snowball sampling technique.

The text above highlighted that individuals' evaluated pertinence to clarify the research topics was a main criterion to select interviewees. This was also a main criterion for the researcher to attempt to contact particular interviewees *multiple times*,

as discussed below. Moreover, the text also highlighted the steps taken to deal with the challenges to access the field and its actors. The ensuing text reflects on the adopted categorisation of actors as ‘central’ actors, ‘local’ actors and consultants.

Actors’ categorisation as ‘central’ actors, ‘local’ actors and consultants.

In this study, actors are classified into one of three groups: ‘central’ actors; ‘local’ actors; and consultants. Sunder (2010) highlighted the unsolvable, general problem of any categorical classification, which inevitably imposes upon the interpretation of the social setting a particular criterion, one among possible others. Such imposition from the researcher is hardly ever a ‘natural’ or ‘neutral’ one, and therefore the role of the researcher should be explicitly acknowledged. It may also be argued that the implicit classification criteria of ‘central’ vs. ‘local’ and ‘internal’ vs. ‘external’ mirrors a quite traditional (and contested) view of organisations (e.g., Dechow and Mouritsen, 2005; Quattrone and Hopper, 2005). However, even Quattrone and Hopper (2005) recognised that one of the organisations they studied did maintain a ‘centre’ and ‘peripheries’, even in an ERP environment, and Hyvönen *et al.* (2008) built on ANT to understand how the ‘centre’ (the headquarters) developed visibility over ‘local’ actors and ‘local’ sites. In addition, these criteria have indeed largely emerged from the fieldwork and the accounts of organisational participants - the way they were perceived and interpreted by the researcher. Therefore, it was considered that these categories of ‘central’ actors, ‘local’ actors and ‘consultants’ were adequate to frame the main perspectives and tensions at stake in the case study organisation.

It should be emphasised that this classification applies to *both individual and collective human actors*, as well as to both human and non-human actors - in line with

the endorsed ANT perspective (see section 3.4) *Collective* human actors are the first main distinctive concept. Some examples are the SSC, the CC, the team of consultants and the collective of (local) plant directors (described in the next chapter has having, particularly in the past, significant power and the effective capacity to counter ‘central’ initiatives). A collective of multiple individual actors is something different from a simple aggregation of its individual components, in particular when this collective is somehow organised and ‘capable’ of producing effects – i.e., of having *agency* (Clegg, 1989). It should be clear that the acceptance of the concept of collective actors implies neither the assumption of homogeneity (Law, 1997) nor overlooking individual actors. On the contrary, ANT emphasises the multiple individual actors interrelated within the network that each collective actor constitutes. Finally, it should be noted that although it was possible to identify the objectives and the repercussions of the activities of these collective actors, they obviously *cannot be interviewed* – only their individual members can.

In addition, as stated, *non-human* actors may also be included in this classification - as *central* or *local* actors. However, it should be recognised that some classifications are not straightforward. E.g., SAP has been described as “heteromogeneous” (Quattrone and Hopper, 2006, p. 212), as a homogeneous technology while possessing diversity and attracting and generating heterogeneous uses. In this case, SAP, although it was (differently) used by both central and local actors, was considered as a ‘*central*’ actor, for two reasons. First, SAP was essentially under structural control of central actors (see section 6.1). Second, in an overall evaluation, SAP significantly supported the attainment of objectives of central actors who had been involved in its introduction and development within the organisation – while, on the contrary, a mix of positive and negative repercussions upon local actors was quite

noticeable (see chapters 6 and 7). On the other hand, certain IT solutions were classified as ‘*local*’ actors, such as the Excel spreadsheets locally developed and used by (local) plant controllers, which supported a significant degree of discretion to local human actors in their socio-technical relations, both with central and other local actors.

Interviewees were categorised based on the position held when they were last interviewed (or when leaving the company, if the last interview occurred after the departure). *Consultants* were all included within the same category, given their reduced number, but IndCo’s interviewees were classified in smaller categories, reflecting their broad functional area and, in some cases, their hierarchical position. *Ensuring interviewees’ anonymity* (see subsection 4.2.1, p. 238) was a major concern; therefore, very specific categories were *avoided*. *Central* interviewees were functionally and hierarchically diverse. The case study analysis adopted four categories of *central* interviewees: 1) ‘IT members’; 2) ‘CC members’ (including Finance, Management Control and another Department focused on Business Processes and Organisation, although outside the CC structure); 3) ‘SSC members’; and 4) ‘senior managers’. This last group includes senior managers from other areas, including the CEO, the senior group manager and the senior group advisor. *Local* level interviewees were kept within a single category (rather than, e.g., distinguishing between plant directors and plant controllers), given their reduced absolute number.

Key figures of the interview technique

A total of 54 interviews were held with 29 actors, corresponding to 57 person interviews (in three occasions, two actors were interviewed simultaneously at IndCo’s headquarters). Total interviewing time amounted to over 90 hours, corresponding to an

average duration of one hour and forty minutes (varying from 50 minutes to three interviews over three hours long). Employees of the case organisation were interviewed in 44 occasions; the remaining 10 occasions corresponded to employees of the consultancy firm. One consultant involved in the implementation of SAP later became a member of the case organisation; according to the above criterion of classifying respondents based on their last position, this actor (interviewed twice) was not classified as a consultant, although his insights were important to understand the consultants' perspective.

Some figures are now presented as regards the adopted three broad categories of actors ('central' actors, 'local' actors and consultants). *Central* actors were interviewed 42 times. The groups interviewed the most were IT (18 times) and the CC (11 times), but the two other categories were also well represented. The table below indicates this information for all groups, as well as the number of actors in each group and how many times each actor was interviewed.

Number of actors	Actors' description	Number of interviews	Number of times each actor was interviewed
6	IT members	18	(1 person x 8 times, 1 x 4, 2 x 2, 2 x 1)
6	CC members	11	(1 person x 3 times, 3 x 2, 2 x 1)
4	SSC members	7	(1 person x 3 times, 1 x 2, 2 x 1)
5	Managers (in other functional areas)	6	(1 person x 2 times, 4 x 1)
21	TOTAL CENTRAL ACTORS	42	

Table 4.1: Distribution of interviews across 'central' actors (Source: developed by the author)

From these 21 actors which, considering their current position, were classified as central actors, nine had previously held positions at a local level. The length and distance in time of the 'local' experience of these now central actors was varied. It is recognised that these once-local actors' perspective was naturally influenced by their

current ‘central’ position and perspective and, in particular, by their current central membership (Munro, 1999). In spite of such limitation, they were useful to characterise the ‘local’ level, in particular regarding the past periods in which they were located in the local sites – an important contribution to the retrospective component of the research.

Five local actors (two plant directors and three plant controllers⁴¹) were interviewed, in the same number of occasions. Three consultants were interviewed over 10 occasions: the consultant acting as a ‘representative’ was interviewed five times; another consultant was interviewed four times; the third was interviewed once.

As mentioned above in this section, the interviews were distributed throughout the three years’ period of the fieldwork; however, there were very different stages during the fieldwork, translating into some differences in the number of interviews in each stage. Figure 4.3 below depicts the interviews distribution along the fieldwork period on a semester basis⁴².

⁴¹ One local interviewee had been a plant controller for five years and had been very recently transferred to the logistic area. Given that this respondent’s experience was still virtually entirely based on the plant controller function (indeed, that was the reason why this individual was selected for interviewing), this respondent is here considered as a plant controller

⁴² As indicated in footnote 28, an interview carried out in late 2009 was considered to be beyond the fieldwork period and was therefore excluded from the figure (whose figures only add up to 53 interviews) and from the remainder of this analysis.

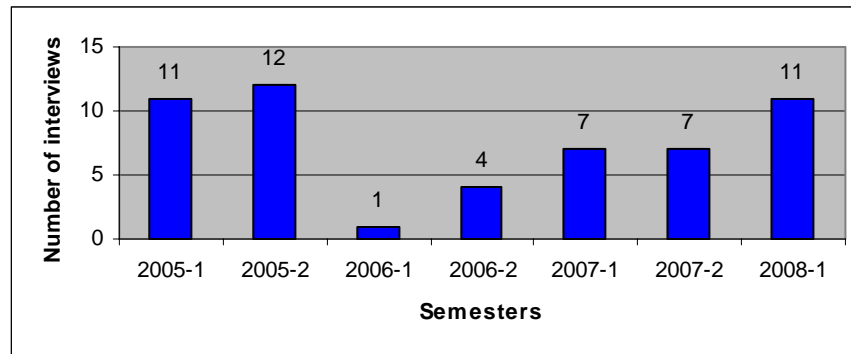


Figure 4.3: Distribution of interviews across the fieldwork period, on a semester basis.

(Source: developed by the author).

The first year included not only a significant number of interviews (23), but also extended periods of observation (see above in this subsection). The very low number of interviews (only one) carried out during the first half of 2006 corresponded to the period in which the researcher awaited for authorisation to study the on-going implementation of an SAP module (see above in this section). Since this authorisation was refused in June 2006, access to other areas beyond IT became compromised and interviews during the second half of 2006 were restricted to the IT area and to the consultancy firm. These restrictions, associated with the need to re-evaluate the research project, justified the low number of interviews during this period (only four). The first semester of 2007 included the interview with the senior manager that reopened the researcher's access beyond the IT area and brought the issue of power to the forefront of the research (this was the 32nd interview). The number of interviews rose steadily after that: three more interviews in that semester (three had occurred before, in the IT area); seven in the second half of 2007; and eleven until April 2008, when the fieldwork was ended. As mentioned in subsection 4.1.4, 22 interviews occurred after positioning the topic of power as the centre of the research - a significant number of further interviews, providing additional focused insights. Importantly, these additional insights added to

those obtained through the first 31 interviews, whose transcripts and notes were reviewed with a particular concern on the new topic of power.

One final characteristic of interviewees should be noted: a very high percentage of interviewees had a long company history. This characteristic is particularly pertinent to highlight the adequacy of the case organisation and the selected interviewees to research *long-term* processes, in particular with a strong *retrospective* component. The purposeful, snowball sampling technique allowed identifying a large number of actors with a long company history, with current or past organisational positions which were relevant as regards the research topics. Considering the last time each interviewee was contacted, more than one third of the interviewees had experience at, or with, IndCo for almost *two decades*; this percentage approached 50% for twelve years of experience and 90% for six years or more. This demographic characteristic of a stable organisational membership, as well as an adequate sampling criterion, was indeed indispensable to allow researching past and long-term processes.

The text above has already included data about the number of times that actors were interviewed. The ensuing text now reflects on the various advantages of having often interviewed respondents multiple times.

The importance of multiple interviewing

There was a recurrent concern to interview respondents multiple times. In fact, interviews to respondents who were contacted three or more times represented 47% of total interviews. This percentage rises to 72% when the threshold is placed at two or more contacts (41 person contacts, out of 57).

Several objectives made the researcher often attempt to obtain multiple interviews with the same respondent, particularly when the respondent was considered to be knowledgeable about the research topics⁴³. One reason was related with the need to obtain in-depth insights. The initial interview time might not have been enough to cover, with the desired depth, all planned topics. Additionally, given the interviews' open-ended nature, issues might emerge during the initial interview that could not be suitably developed during that encounter.

Another reason was related with the on-going nature of the study. The development of the fieldwork and analysis raised issues about which further insights from previously interviewed actors could be particularly relevant. That was particularly the case when new research areas emerged.

Another reason was related with *data triangulation* across several sources (with the caveats expressed about the limits of the triangulation concept). Seeking mutual support across information sources was particularly relevant in this study, since its long-term and retrospective nature created particular challenges to the reliability – and even availability - of interviewees' accounts. The reliability of interviewees' accounts about a quite distant past may be compromised by their selective memory, forgetfulness or long-term post-rationalisation (e.g., Miles and Huberman, 1994; Christensen, 2005; Quattrone and Hopper, 2006; Silverman, 2005). These risks did materialise in several instances: sometimes, interviewees recognised that they did not recall specific events, and some detected information inconsistencies between sources were clearly attributable to forgetfulness, in particular as regards detailed, technical aspects. In a few

⁴³ The researcher also considered the respondent's perceived *willingness* to further cooperate. In the few cases where this willingness was perceived to be low, such request was usually not formulated, to prevent potential damages in the access to other actors. Furthermore, should international trips be involved, their cost (both financial and in terms of time) was also considered.

cases, recall problems, especially regarding detailed aspects, made the interviewee recommend additional contacts with other participants or call them on the phone for clarification or even to join the on-going interview. It is nonetheless acknowledged that these solutions to circumvent forgetfulness do not eliminate the overall risk of the interviewees wanting to appear knowledgeable and therefore “tell more than they really know” (Lillis, 2006, p. 471).

A related aspect was that there were often *lengthy intervals* between interviews to the same respondent (several months or even more than two years). The long elapsed period between interviews had important benefits. First, it allowed a ‘fresh start’, reducing a possible constraining influence of the prior meeting. Second, it allowed that more (potentially conflicting) insights were generated from other sources and hence they could be triangulated. The third benefit is related with multiple interviewing in general: long period between interviews promoted that additional empirical and theoretical topics might have emerged after the previous interview; therefore, the subsequent interview could be more useful, both to obtain insights on those additional topics, as well as to allow triangulation.

Finally, multiple interviewing also contributed to the *longitudinal* component of the research, by obtaining the views of the same respondents at different moments of continuously evolving change processes.

Further details about interviews

Virtually all interviews were digitally recorded. Interview recording lessened the need to take hand-written notes and allowed the researcher to concentrate on ‘real time’ and deeper analysis of the interviewee’s discourse (verbal and non-verbal), potentiating

interaction and the immediate detection and inquiry of particular points requiring further clarification or development. Interview recording was also indispensable to produce exact quotes, which enhances the credibility of inferences drawn (Marshall and Rossman, 1995; Moll *et al.*, 2006b; Yin, 2009).

Only seven interviews were not recorded: the two first interviews in the consultancy firm and the first interview in IndCo, in which the main topics were discussing the research project and negotiating access, at a time when personal relations were still at a very early stage; two interviews, upon respondents' request; and two interviews whose relatively informal nature made using a recorder inappropriate. A technical problem caused the recording of one interview to be lost; the researcher wrote down immediately all the still very recent memories about the interview. In all unrecorded formal interviews, notes taken were particularly extensive. These extensive notes were then rewritten and complemented with the researcher's memories, right after the interviews were held.

Recorded interviews were then transcribed, in Portuguese, even when the interviews were conducted in Spanish. Although the researcher has a reasonable command of oral Spanish, his more limited spelling skills would render transcribing in Spanish considerably more difficult, without any clear advantage over the immediate, and relatively unproblematic, translation to Portuguese. As the case study analysis and write-up progressed, relevant interview sections were identified and *translated* into English. These translations were used in the analytical techniques described below and as quotes for the case study write-up. *Exact* quotes have been used in the case study, with very occasional and minor editing when needed. In the few non-recorded cases where no interview transcript was available, but where the respondent had provided

relevant insights, the researcher attempted to reconstruct the original sentences as accurately as possible, identifying these very few quotes as ‘approximate quotations’.

4.2.2.7 Conclusion

As in Soin *et al.* (2002, p. 253), “the research was an emergent process” where planned techniques of inquiry were blended with unplanned, opportunistic research possibilities. Planned interviews and meetings observation were particularly fruitful in creating opportunities to draw upon other techniques: e.g., interviewees might inform about future meetings and provide artefacts; the waiting periods before or in-between interviews and meetings potentiated observation of ‘socio-technical’ interactions. This ‘emergent process’ of fieldwork was consistent with, and adequate to, the wider ‘emergent process’ of case-study research, in which the “investigator can take advantage of changing opportunities, as well as shifts in theoretical concerns, to produce a (...) case study” (Yin, 2009, p. 71).

This subsection described the techniques (documentation, observation of socio-technical instances and interviews) mobilised to generate and collect information. The next subsection now focuses on *analytical* techniques, i.e., the techniques mobilised to analyse that information.

4.2.3 TECHNIQUES TO ANALYSE INFORMATION

There are various techniques to analyse, in an on-going basis as the fieldwork evolves, the information gathered up to each moment. Indeed, this on-going nature of information generation and analysis blurs the usual distinction between the two stages.

4.2.3.1 The evaluation, and rejection, of using computer-assisted techniques of analysis

Moll *et al.* (2006b) confronted manual and computer assisted techniques of qualitative data analysis, noting that the former have tended to prevail in accounting research. There are numerous arguments in favour of such ‘modern’ techniques of analysis; e.g., in some strands of grounded theory, the usage of commercially available packages has become extremely popular. However, there is general agreement that by no means these techniques, by themselves, warrant more valid research results. As Yin (2009, p. 129) noted, “nearly all scholars express strong caveats about any use of computer-assisted tools” (p. 129).

The researcher intended to have a *de facto* possibility to choose among ‘manual’ and IT-supported analytical techniques, without the common constrain of the researchers’ lack of knowledge about these IT tools (Moll *et al.*, 2006b). In addition, the researcher had access to such commercial packages through his employer. Therefore, the researcher started evaluating IT commercial packages in 2005. Furthermore, in 2006, he attended two courses at a Portuguese University (at an elementary level and at an advanced level) to learn about two particular solutions: N6 and, secondarily, NVivo⁴⁴.

This evaluation allowed the researcher to recognise that these IT tools have potential advantages, in particular to manage large volumes of data. Indeed, during the course of data analysis, the researcher did struggle with managing the over 1000 pages of annotated transcripts - more than twice the number of pages (500) that Creswell (2003) indicated as justifying the usage of specialised software. However, the researcher

⁴⁴ The researcher had intended to attend the previous edition of such courses, in 2005, but there were no available places when registration was attempted.

also considered, along Moll *et al.* (2006b) that these IT tools “do not ensure that the important themes or patterns are identified” (p. 391). Moreover, the researcher had already developed a computer-based (yet ‘manual’) referencing system between the various stages of data analysis (see below), and considered that the commercial packages would provide little additional benefits as regards such linkages. Hence, all considered, the initial option of not using dedicated IT tools to analyse the empirical data was confirmed, and the analytical techniques described below were applied.

4.2.3.2 Deployed analytical techniques

Data analysis started by careful revisions of the transcripts and notes of the interviews (and meetings). Annotations were first included in each transcript file. Next, the most recurrently performed technique for analysing data was carried out: “creating data displays – flowcharts and other graphics” (Yin, 2009, p. 129). This technique was preferred over the alternative suggestion of “making a matrix of categories and placing the evidence within such categories”, since it was better suited to the actor-tailored, flexible interviewing strategy that was adopted. The researcher started by identifying categories in a deductive way, initially inspired by the theoretical framework and then by the ongoing empirical insights. Then, the transcripts were reviewed searching for additional insights related with those emerging categories.

The main topics of analysis constituted the main structure of these displays. Under each main topic, various displays were created. Some of the displays were basically aggregations of insights and reflections about a particular topic, while other displays constituted a ‘causal’ network.

Linkages were created between the proposed displays and the original transcripts, with two simultaneous procedures. First, data was sorted within categories by copying transcript excerpts into categorical boxes in Microsoft® Powerpoint® (the selected excerpts were previously translated into English, to allow for examination by third parties and to provide the basis for subsequent case write-up). Second, a dual-direction referencing system was kept between the original interview transcripts and the categorical frameworks (in the Powerpoint® file). This dual-direction referencing system was then extended to the case report, hence maintaining a *chain of evidence* (Yin, 2009).

Powerpoint® functionalities allowed for a flexible manipulation of categorical boxes, as the fieldwork and analysis developed, contributing to the recommended ‘playing’ with data (Yin, 2009). E.g., ‘boxes’ were shifted around, rearranged within or across slides⁴⁵; relations (regarding, e.g., causality or temporal sequencing) were visually expressed through arrows or through encompassing larger figures; and ‘syntheses’ were produced rearranging together multiple boxes after empirical details were deleted.

Another manipulation suggested by Miles and Huberman (1994), cited by Yin (2009, p. 129) was “putting information in chronological order or using some other temporal scheme”. This suggestion was implemented with the resort of various Excel® spreadsheets, which chronologically represented various organisational aspects (e.g., a general company history; IT projects; organisational changes; key actors, etc.). This systematic representation of data not only helped organising the large volume of empirical information, but it was also a preliminary step towards inferring causal

⁴⁵ Slides typically focused a particular, wide topic (e.g.: “IT integration”). But some topics (such as that particular one) with more theoretical ramifications or more empirical material extended for several slides.

relationships between events. (Obviously, while precedence is necessary to infer causality, it is nonetheless insufficient.)

The search for, and testing of, *rival explanations* is a key step of any credible case study (Moll *et al.*, 2006b; Yin, 2009). Throughout the analysis, serious consideration was given to examine whether the empirical insights could be explained differently – as regards particular interpretations of specific empirical insights and as regards wider theoretical conceptualisations, drawing from the (provisionally) adopted framework. Examining rival explanations was not an activity restricted to data analysis. Rather, this activity was taken to the fieldwork, as subsequent interviews attempted to generate additional empirical insights to corroborate, reject or develop the rival (as well as the proposed) explanations.

It can be argued that a case study with holistic concerns may tend to accommodate *complementary* (though not exclusive) explanations. This creates ‘grey’ zones as to whether a particular explanation should be considered as *rival* or merely *complementary*. A paradigmatic case was the explanation of the SSC creation. The explanation most aligned with the emerging framework of power pointed out the objective to increase information and control (and power) of some central actors; a rival explanation indicated the (mostly economic) objective to reduce costs. This issue was explored in multiple interviews, sometimes with the same interviewee in different occasions, during which the tensions between these alternative explanations were explored.

4.3 CONCLUSION

This chapter described the research design of this thesis, with the particular concern of conveying a *processual* view of research design – i.e., of research design as a process, related to a broad research strategy, with both deliberate and emergent components. This processual view entailed acknowledging non-linear research paths, their advances, drawbacks and uncertainties, rather than conveying a sanitised view of the research process (in line with the approach taken by various contributors to Humphrey and Lee, 2004).

This chapter started, in the first section, by discussing fundamental assumptions and the initial choices regarding research topics, theories, methodology and method. Particular attention was devoted to justifying the option for the case study method and its main features. Then, it was highlighted how some of these assumptions and choices were questioned and re-examined, as the research progressed. The most relevant changes concerned the adoption of a new research topic and theoretical framework, requiring a discussion of the theoretical triangulation concept.

The second section analysed more detailed aspects of the study. It analysed how the definition of the organisational and temporal scope was also subject to revision, as the project evolved, and it justified the option for anonymity taken. Then, it analysed, in separate subsections, the various techniques deployed to generate and analyse empirical information – whose theoretical interpretation is presented and discussed over the following three chapters.

CHAPTER 5 – THE CASE STUDY: A FOCUS UNTIL THE END OF THE 1990’S

5.0 INTRODUCTION AND OVERVIEW

The analysis of the case study organisation, anonymously referred to by the acronym ‘IndCo’ (standing for ‘Industrial Company’)¹, is spread across the current chapter and the following two. As Czarniawska (1998, p. 2) suggested “[a] narrative, in its most basic form, requires at least three elements: an original state of affairs, an action or an event, and the consequent state of affairs” (see also Johansson and Baldvinsdottir, 2003). Each of the three chapters (5, 6 and 7) covers each element, respectively.

The current chapter is the first building block of the case study narrative. Since “[c]reating meaning is always context-bound, and a narrative requires a plot to make it into a meaningful whole” (Johansson and Baldvinsdottir, 2003, p. 222), this chapter sets the context of the case study and provides ‘the plot’ of the overall narrative. It provides general information about the organisation and key actors and a broad historical perspective. In addition, the current chapter characterises the organisation in more detail between the early 1990’s and the late 1990’s – occasionally using characterisations and examples of both previous and later periods, to emphasise the depth and persistence of certain traits. As clarified in chapter 4, the start of this period (early 1990’s) was chosen given the start of a new stage in IndCo’s general history (following an important

¹ Given the confidentiality agreement mentioned in the previous chapter, details which might reveal the case organisation identity are omitted or disguised. Such details include the names of individual people and companies, the industry, the products, most countries and some time references. The majority shareholder is identified as Mr. A. The case organisation is identified as ‘Indco’ and the subsidiaries are identified according to their location (when disclosed). Most countries are not singled out, with the exception of Portugal, Spain and country ‘C’, as justified in the previous chapter. Finally, in most situations, time *periods* (rather than precise dates) are indicated as regards events more likely to be publicly known.

international acquisition) and in the specific field of IT (following the start of the in-house development of information systems). The end of this period (late 1990's) was chosen because the organisational and technological changes considered as relevant for this case study, as well as fundamental power shifts within the organisation, started unfolding at that time

The next chapters focus on ensuing periods. Chapter 6 analyses the 'action' or 'event' mentioned by Czarniawska (1998). It analyses the introduced technological and organisational innovations, actors' motivations for introducing them, their *expected* repercussions and the implementation processes. Finally, chapter 7 analyses the 'consequent state of affairs', the third element of the narrative, since it explores the repercussions which emerged throughout the years that followed, until the end of the fieldwork, in 2008.

As discussed in chapter 4, no "linearity of time and evolution" (Quattrone and Hopper, 2006, p. 222) is assumed. However (or, actually, precisely because of that), chronology roughly shapes the macro structure of the case study. Chapter 5 encompasses the period until the late 1990's; chapter 6 has a particular focus on the 1998-2002 period, a time when evolution and change were clearly more drastic and non-linear; and chapter 7 encompasses the period after 1998 and until the end of the fieldwork, 2008.

From a theoretical perspective, the first three sections of this chapter characterise the organisation and some key actors without imposing a particular framework. However, this initial characterisation identifies issues which provide clues to, and suggest the need of, the adoption of theoretical concepts and frameworks explored in the

previous chapters. For this purpose, the following two sections, 5.4 and 5.5, as well as the following chapter, adopt Clegg's (1989) framework of circuits of power.

The first section provides background data about the case study company and its industry, the economic group in which it is included, and a key actor in the company's history – its chairman and majority shareholder. The second and third sections provide an overview of the company's history up to the late 1990's, based on a strategy of growth through acquisitions. The second section analyses the shifts in the location of formal decision centres and it argues that, taken as a whole, the case organisation could be described as a decentralised and diversified organisation. The third focuses on three particular functional areas (IT, production and accounting and finance). It concludes by preliminarily characterising the power (and limitations) of some actors, considering how the company's history of acquisitions contributed to that.

The fourth section develops the previous analysis of power and provides a theoretically structured answer to the first research question, which intended to *explain why formally powerful, central actors at the case study organisation were confronted with power limitations*. A preliminary conceptualisation of the empirical insights suggests the need to find *the causes* of power, distributed among various organisational actors. For such purpose, this section adopts the theoretical lens of Clegg's framework of circuits of power. The fifth section discusses the interrelated nature of the circuits of power and provides two empirical illustrations. A final section summarises the chapter.

5.1 THE INDUSTRY, THE COMPANY, THE GROUP AND THE MAJORITY SHAREHOLDER

5.1.1 BRIEF INDUSTRY DESCRIPTION AND COMPANY HISTORY

‘IndCo’ began its activity about half a century ago, as a small, family-owned company in Portugal. The products of IndCo’s industry are well-established, simple, low-technology and relatively homogeneous and undifferentiated, almost commodities. IndCo’s products are mostly targeted at two industries, whose players may purchase directly to IndCo or through retailers.

Evolution at the core product level has been very slow. Major innovations, such as fundamental new product characteristics or distinctly new products, take decades to happen; innovation efforts are therefore mostly targeted at the production process itself. Overall, IndCo’s industry is mature, as it already was when IndCo was founded. The industry suffers from long-standing, structural over-capacity. In addition, demand is cyclical, as it is strongly influenced by global economic cycles. As a result, the market is quite volatile, with cyclical and frequent unbalances between offer and demand.

Growth through acquisitions has historically been the prominent strategy of IndCo, pursuing a policy of having majority or absolute control in all acquired companies (with very few and recent exceptions). For several decades, IndCo pursued horizontal and vertical growth strategies within Portugal, through a mix of acquisitions

and organic growth. In the late 1980's, IndCo made its first international acquisition and became established in international markets as a high-quality, low cost producer.²

In the 1990's, a strategic decision for globalisation was taken. In the early 1990's, IndCo purchased a controlling position in a Spanish competitor. At the time, the acquired company had a large greenfield project already underway in another country, rather distant from the other IndCo's locations; industrial operations started in mid 1990's. This acquisition was extremely important in IndCo's internationalisation process, as it expanded the company's industrial presence from two to four countries and approximately doubled the number of plants and their capacity.

After integrating this acquisition, a strategy of organic growth was defined, but the search for acquisition opportunities did not actually end. In late 1998, IndCo seized the opportunity to acquire a large competitor of country C, with production activities in two countries. This acquisition, combined with greenfield investments in several countries, substantially increased IndCo's international presence by the end of the 1990's. Until the early years of the 21st century, IndCo continued its global business expansion cycle, diversifying the product range and modernising technical assets. IndCo carried out additional (smaller) national and international acquisitions, started-up greenfield plants and modernised and created new lines of production in existing plants.

However, after this period of investment, the sector went into strong recession, characterised by industry overcapacity and decreasing prices. Reductions in margins led to a significant deterioration of IndCo's financial performance. Operational and

² This characterisation was made by a case study about IndCo's group, published in 2001 in a refereed academic journal. Reference omitted for confidentiality reasons.

financial recovery was only felt after market recovery (demand increase and reduction of capacity through elimination of competitors' plants, hence leading to price and margin increases) and turnaround programs developed by IndCo's management.

In the second half of the decade, IndCo performed additional acquisitions and opened an exception to its policy of having controlling positions, by creating a joint-venture with a competitor. By the end of the decade, the global economy crisis started to affect the company's performance. In spite of IndCo's improvements since the start of its international expansion, IndCo remains inevitably exposed to the industry's cyclical nature.

As a consequence of this long history of international expansion, IndCo has a high geographical dispersion of its assets and markets. On the other hand, its products are relatively homogeneous. Therefore, both business risk and profitability are mainly dependent on the geographical aspect and, only secondarily, on business diversity. This is reflected in the management and financial reporting to the Board, structured primarily according to the geographical location of IndCo's assets.

5.1.2 THE CREATION OF A DIVERSIFIED GROUP AND THE MAJORITY SHAREHOLDER

Two aspects had a significant impact in the evolution of IndCo: the diversified group which has developed from IndCo; and its long-standing majority shareholder and chairman, Mr. 'A'. First, as regards IndCo's group, investments outside the original core business were made since the 1980's. This strategy of diversification still continues today. Separate holdings have long been created to promote a greater focus and

development of each core business, allowing the management of each business unit (such as IndCo) to be largely autonomous.

The development of IndCo and its group is intimately linked with Mr. A – identified by the first letter of the alphabet because he was the ultimate and undisputed source of formal power in IndCo and in IndCo's group, throughout the extended empirical time frame of this research (from the early 1990's until 2008) and even beyond this period. He became the company's CEO and key shareholder several decades ago, later acquiring majority control. The case study mentioned in footnote 2 (above in this chapter) emphasised the importance of this particular individual in the development of the entire group. Mr. A maintained a complete and undisputed ownership over his various companies, with an active involvement in the business. Though the group management is widely regarded as being extremely professional, the ultimate control remains in the hands of Mr. A and his family.

5.2 AN OVERVIEW OF THE COMPANY UP TO THE LATE 1990'S

This section characterises the company up to the late 1990's. As clarified, both this section and the next are not structured by a particular theoretical framework. However, the insights of both sections gradually highlight the importance of the issue of power, to be explored later in the chapter in a theoretically informed and structured way.

The first subsection analyses how the location of IndCo's major formal decision centres (both individual and collective actors) shifted during the 1990's. The second subsection characterises IndCo as a decentralised, autonomous and diverse company, largely due to its growth strategy through acquisitions. This subsection introduces the

view (to be developed in the following section) that by the late 1990's IndCo's decentralisation, autonomy and diversity led to a number of difficulties to actors who had an interest in the company as a whole, from a central perspective. These actors (labelled as '*central*' actors, as justified in the previous chapter) struggled with lack of centralised information and central coordination, integration and control of autonomous and diverse subsidiaries and plants. In addition, these '*local*' actors (individual and collective actors) differed from the central actors, as regards some interests, concerns and perceptions of the interests of the company as a whole. As a consequence, some of the formally powerful central actors were confronted with a number of power limitations. The third and final subsection consists of a brief reflection on the period prior to the 1990's decade.

5.2.1 SHIFTING LOCATION OF FORMAL DECISION CENTRES

5.2.1.1 Ownership, top management and corporate centre locations

IndCo's main shareholder, Mr. A, has owned the company since the early 1980's and he always had a strong intervention in the global management of both the company IndCo and the entire holding. He was always IndCo's chairman of the Board of Directors, though much of the daily management was led by the other directors (or by the Executive Committee, during the periods when this body existed)³. As mentioned above, Mr. A was, for decades, the ultimate and unchallenged source of formal power.

Until the early 1990's, IndCo's top management, including Mr. A, was located in Portugal. The acquisition of the Spanish competitor in the early 1990's introduced a

³ The name of Mr. A's position varied as the governance structure changed. However, regardless of his actual position within the governance structure, Mr. A had the ultimate say in the most important issues.

novel configuration of the highest level decision centres. After the acquisition, most of IndCo's top management moved to Madrid – with the notable exception of Mr. A, who always remained in Portugal. Interviewees provided several reasons for this top management shift to Spain, two of which are now mentioned⁴. First, the acquired company had a similar dimension to IndCo, and its integration required substantial managerial attention. Second, it allowed top management to be located where the largest number of plants were, i.e., to be at the group's *geographical* centre.

Along with the move of most of IndCo's top management to Madrid, a Corporate Centre also developed there, based on the CC of the acquired Spanish company. As the years passed, the Spanish CC encompassed an increasing number of functions, replacing the previous CC in Portugal. As a CC member explained,

“All corporate structure had, in practice, migrated to Madrid. (...) The Portuguese corporate team had one single, part-time person. (...) Even though the decision centre [Mr. A] had not moved, in practice it had been totally transferred: the top manager of IndCo was there, Human Resources were there, everything was there.” (synthesised quotation)

Some interviewees suggested that the maximum influence of the Spanish CC may have been reached around 1998, when the chairman of the Executive Committee became a non-Portuguese. He was from a Hispanic country⁵ and only had a very short two-year history within IndCo's group. His profile was substantially different from the one of his predecessors, as a senior manager reflected:

“[Before 1998,] IndCo's CEOs alternated between [person X, person Y and person Z]: all Mr. A's trusted people, who had been in the group for

⁴ Corporate governance-related issues also promoted this shift. However, since such disclosure might compromise the organisation anonymity and is not essential for this study, these issues are not discussed.

⁵ Portuguese interviewees often identified this CEO as Spaniard, given his location in Spain and Spain's historical and linguistic links with the CEO's country of origin (not identified to preserve anonymity).

many years. [On the other hand, the new CEO] was a recent arrival. He had done some consultancy work for IndCo's group, (...) Mr. A liked him and decided to hire him to IndCo."

Therefore, several interviewees reported that by 1998, in practice, the main decision centre was located in Spain. Although the ultimate decider, Mr. A, always remained in Portugal, he had now less opportunities to actively intervene in the daily management of the business, given his geographical distance from the top managers and the supporting structures.

The following years witnessed a marked return back to Portugal: the gradual transfer to Portugal of the Corporate Centre (CC), starting in 1999; the creation in Portugal of a Shared Services Centre (SSC), in 2000; and the re-establishment in Portugal of a Portuguese-led top management in 2001. Understanding these shifts of key people and organisational structures, in particular as regards related power issues, is crucial for this thesis. Such understanding requires a more detailed analysis of the context which preceded these shifts (in the remainder of this chapter), as well as their motivations, processes of introduction and consequences (in the following chapters).

5.2.1.2 The particular case of the location of IT organisation

The Information Technology (IT) area has a particular relevance for this case study. The location of its staff and leadership also shifted during the 1990's - but not totally in line with the top management shifts described above. The creation of an important IT team dates back to the late 1980's. In 1989 and 1990, IndCo hired a large number of systems engineers to develop, in-house, a new operational system. This IT team was based in IndCo's headquarters, in Portugal. In addition, during the 1980's and early 1990's, there were also IT teams in each plant, which not only performed support

activities, but also carried out some minor developments. The existence of local IT teams could be justified by technical reasons, since each plant had a separate installation of the same operational system; however, from an organisational perspective, their existence was also in line with the general autonomy of individual sites.

The acquisition of the Spanish group in the early 1990's and the ensuing transfer of top management and CC to Madrid also affected the IT area – but only for a short period. In 1995, IT leadership became shared between a Portuguese and a Spaniard, both reporting directly to the CEO and each leading his own IT team. Each team was partly specialised in certain tasks, but still had significant independence – which, e.g., allowed the Spanish IT team to carry out projects without the involvement of the Portuguese team and with a sole focus on the Spanish organisation, such as the Spanish SAP project, briefly discussed in the next chapter (page 382 and following). However, this dual structure was eliminated in 1998, due to unsatisfactory results. Therefore, the Portuguese leader regained formal power over the entire IT area. Additionally, in 1998, the IT teams of the acquired companies (in two countries) were also incorporated within IndCo's IT structure.

A new organisational model of the IT area, based on two levels, was then adopted: a 'Global IT' team, based in Portugal; and country-level IT teams. The 'Global IT' team concentrated all the development of new solutions, their roll-out across countries and most support activities. On the other hand, IT teams at country and plant levels were highly reduced, and their role became restricted to user-support and interface with the 'Global IT' team.

Since then, IndCo has devoted significant efforts to the IT area. Interviewed external consultants considered the ‘Global IT’ team as significantly larger and possessing significantly more competencies than the IT departments of an average Portuguese company.

5.2.1.3 Conclusion: shifting formal decision centres at a glance

Summarising the current subsection, figure 5.1 below depicts the location of formal, hierarchical power sources, in terms of company ownership, top management and IT leadership.

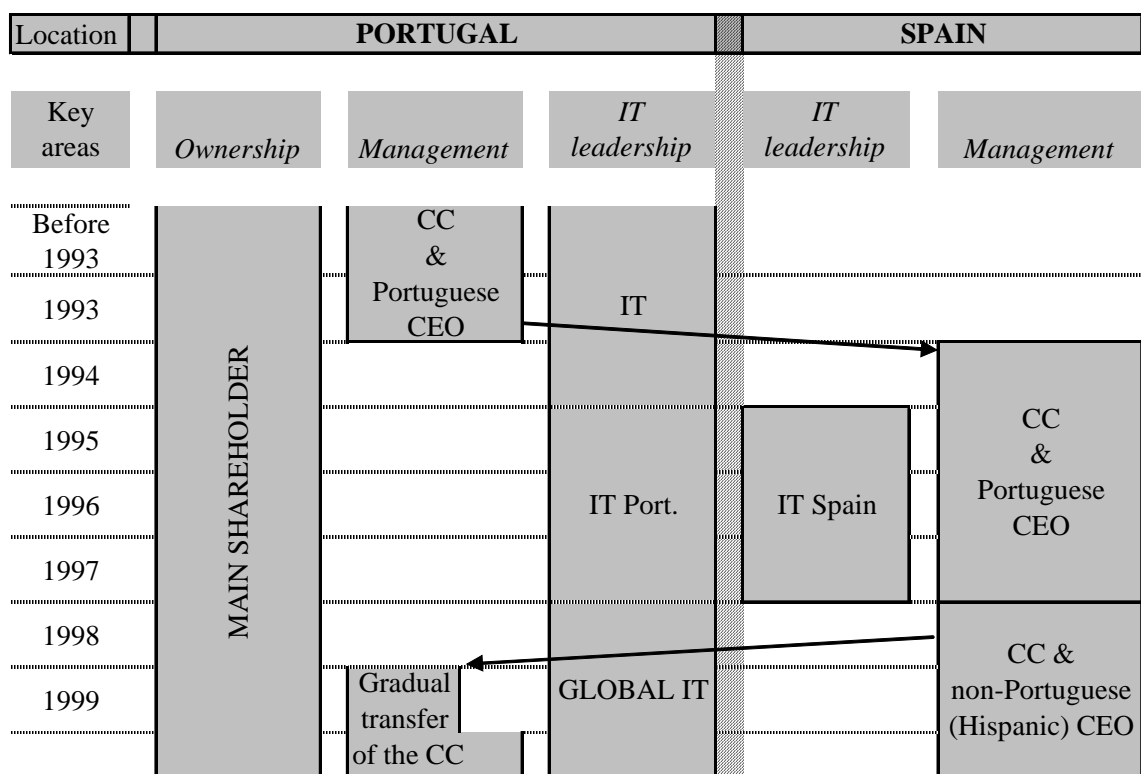


Figure 5.1: Formal power shifts between Portugal and Spain (Source: developed by the author)

IndCo’s ownership has always remained under the control of Mr. A, as the main shareholder, in Portugal. Top management, including the CEO, was transferred to Spain after the acquisition in the early 1990s’, along with the supporting CC. In 1999, the

management structure started being transferred again back to Portugal, starting by a gradual transfer of the CC and culminating in 2001 with the appointment of a Portuguese CEO, located in Portugal. As regards the IT department, formal power and the main organisational structure were again centred in Portugal in 1998 (i.e., before a similar shift happened in the company as a whole). The next subsection provides a general description of key organisational characteristics in this period.

5.2.2 AN ACQUISITIONS-BASED HISTORY OF A DECENTRALISED AND DIVERSE ORGANISATION

IndCo's history of acquisitions, in particular at an international level, promoted the development of a very *decentralised* and *diverse* organisation. The present subsection only sketches with a broad brush the origins and the main characteristics of this decentralisation and diversity, from the early 1990's until the end of the 1990's; the subsection finalises by providing brief insights about the period before the early 1990's. A more detailed characterisation, focusing on different functional areas, is postponed to the next section.

5.2.2.1 Decentralisation and autonomy

Decentralisation and *autonomy* were salient features during the 1990's, and they could be found both at *plant level* and at *country level*. As already described, throughout its history, IndCo acquired several companies (owning one or multiple plants) which were previously autonomous. Naturally, those acquired companies had organisational structures and capabilities which allowed them to operate independently.

This decentralisation and autonomy became more salient when IndCo's international expansion accelerated, in the early 1990's (see the next subsection). Although there were corporate centres in the multiple-plant companies (such as those acquired in the early 1990's and in 1998), plants were far from being mere production centres; typically, plants also possessed local structures related with commercial, purchasing, financial, accounting and some IT support activities, making them (at least) partially autonomous in those areas. As a senior manager stated, in two different interviews⁶:

“What we most often found [in the companies we acquired] were plants as business units, which had their own commercial and productive structures.”

“From a control point of view, we had a number of companies (...) and each company had its own administrative and accounting processes, all that stuff. And everything was carried out locally. There was no integration. But that (...) is more related with the organisation, rather than the software [that was later implemented].”

Even after the acquisitions, those *structures, capabilities and autonomy*, and a *lack of central integration*, mostly remained, at least during a first stage. Keeping a decentralised structure was also supported by a business characteristic: the transportation costs of IndCo's raw materials and products are quite high. This favours that each plant should operate in a geographically defined and not very wide market (rather than in a very wide, even unrestricted market), both in terms of suppliers and clients⁷. So, traditionally, and especially before multiple-plants sourcing became

⁶ This introductory subsection mostly quotes a particular senior manager, due to the higher-level and more general nature of his comments. However, other interviewees were crucial to the development of these insights and they are quoted during the discussion of more detailed aspects, during the remainder of this chapter.

⁷ The near-commodity nature of many of IndCo's products and raw materials might suggest that wide geographical markets could exist. Recent European Commission official documents (references omitted for confidentiality reasons) suggested that the markets of some of IndCo's products should be viewed as

current, interactions and commonalities between the various plants tended to be not significant, in particular at an international level. Consequently, there were fewer incentives for a centralising approach and more incentives to the preservation of units' autonomy.

Each country was also rather *autonomous* regarding IndCo's corporate centre. Each of the multi-plant foreign countries had their own corporate centre – the ones which existed prior to their acquisition by IndCo. As regards single-plant countries⁸, the plants possessed the organisational structures needed for a highly autonomous operation. Although with some variation across countries, IndCo's CC in Portugal generally played a minor role in the everyday planning, management and control of each country. A senior manager described this autonomy by characterising the first international subsidiary during the 1990's. That subsidiary was...

... “perfectly apart [from Portugal], at the time there were no connections. IndCo's CEO visited the subsidiary each two months. Contact was done mostly by phone. And then there were the monthly reports, of course, closing the books and all that stuff. It had its own rhythm, it was highly independent.”

The same interviewee added that around 1997 (i.e., before the large acquisition in 1998), IndCo was...

geographically wider, and the transportation costs as lower, than what was suggested by the respondents. However, this characterisation may not equally apply to the markets of all products manufactured by IndCo and it clearly does not apply to the markets of some of IndCo's key raw materials; such markets are smaller, in particular as regards raw materials. In addition, multiple-plants sourcing was more reduced in the past, in particular due to technological limitations. All the previous reasons support the organisation's policy that the relevant geographical markets for each plant should be clearly defined and ideally not very wide. Naturally, this policy does not preclude the existence of some long distance transactions of IndCo's products; however, they are costlier and hence, *a priori*, potentially less attractive.
⁸ During the 1990's, one of these countries had a second unit, but of a very small size; therefore, although the larger plant ensured most responsibilities, it could not really be considered a corporate centre.

... “still a relatively small – and isolated – set [of sites]. There were no major connections – except here, in the Iberian Peninsula. [The single plant] in [a particular country] had its own General Manager, in [another country] there was another General Manager. And so the information flowed a bit like... There was no cohesion, let’s put it this way.”

The 1998 acquisition of an important competitor in country C (with plants in two countries) required drastic interventions to address its problematic situation⁹. However, in spite of this particular drastic intervention at a subsidiary level, the overall picture continued to be one of lack of intervention and coordination in the way the various regions were run. The same interviewee described how, in 2002, two directors split the responsibility of the countries outside the Iberian Peninsula. Their management approaches were drastically different, in particular as regards the degree of local empowerment and central intervention. Each approach was implemented ...

... “ because that was what each director thought to be the correct way. There was no strategic orientation. At the time (...) each one (...) did what thought to be the best.”

In spite of this scenario of important autonomies at various organisational levels (plant, country and multiple-countries levels), there was not a complete absence of orientation and control from IndCo’s corporate centre, either. Strategic guidelines and broad objectives were set for each country. Control also existed, although typically on a periodic basis only, with a strong emphasis on financial control and heavily relying on the information provided by local teams.

However, the lack of a global “*cohesion*” across the company was a dominant trait, both during the 1990’s (the temporal focus of this section) and even stretching into the start of the first decade of the 21st century. In brief, at the time,...

⁹ This drastic intervention included the dismissal of all top management one year after the acquisition and the closure of the corporate centre one year after that.

“We were an amalgam of plants, not a company.” (IndCo’s senior manager, in a public presentation)

5.2.2.2 Diversity

In addition to decentralisation and autonomy, there was also considerable *diversity* across the company sites during the 1990’s. This diversity can also be partly attributed to the company’s history of acquisitions. A strategy of acquisitions inevitably implies buying companies and sites which are, to a greater or lesser extent, different. So, when compared to a greenfield growth strategy, it is inevitable that IndCo’s acquisition-based growth strategy has created a greater diversity across companies and individual sites.

Additionally, the small and separated geographical markets, promoted by the high transportation costs, also favoured diversity. In as much as the markets of the various units did not overlap¹⁰ and exhibited different characteristics, there was a rationale for specific (and hence diverse) management practices across countries or even plants. However, the international acquisitions in the late 1980’s and during the 1990’s was, indeed, crucial in shaping IndCo’s diversity.

This diversity could be found at different levels, such as *practices, rules, beliefs and identities*. This diversity is discussed in greater detail in the following sections; therefore, only a brief and preliminary characterisation is made at the moment.

¹⁰ As already mentioned, IndCo avoided markets overlapping by defining ‘natural markets’ for each plant. However, before and shortly after some acquisitions, some plants belonging to the same company (in particular, while the acquired companies were still not under IndCo’s control) did compete with each other over the same clients, from the same geographical area.

Differences across sites included several types of practices. *Financial practices* differed, e.g., in their timeliness; accounting procedures and guidelines were not equally applied everywhere; even the design and organisation of the financial processes varied. *Production* practices across plants varied, ranging from strictly productive activities, to interface activities between the production and the commercial area (e.g., the time taken to indicate a delivery date for a given customer order). The *IT department* was already, to a large extent, centralised; yet, IT support still existed in each site, and even doing some minor solution development. This local presence of IT staff led to some variation across locations in the IT areas, although less significantly than in the financial and production areas.

The level of *rules and taken-for-granted beliefs*¹¹ is particularly developed in subsections 3 to 5 and throughout the entire third section. For now, it suffices to say that prevailing rules and beliefs at local levels were diverse, not only between the various local sites, but also (and particularly) vis-à-vis the prevailing ones at a central level. The differences in practices described above could be in part attributed to the enactment of different sets of rules and beliefs.

Actors' organisational identity can be conceived as a particular type of *belief*. It can both refer to a particular, singular actor, or to a plurality of actors. Actors' organisational identity consists of a sense of belonging to, of inclusion in a particular and distinctive group, and it is deeply related with the sense of membership¹². Here,

¹¹ The very brief characterisation of rules and taken-for-granted beliefs (i.e., institutions) made at this point makes a joint analysis of both aspects an acceptable simplification. However, the close ties between them has recently been emphasised (Burns, 2008), up to the extent of recommending their joint inclusion in the institutional realm of organisations.

¹² Munro (1999) depicted membership as provisional, something which was not given by nature or by the formal inclusion in a particular group, but rather had to be achieved through the actors' conduct – by the actors' 'membership work'. The ensuing discussion adopts this important alternative concept of

identity is analysed from the perspective of a plurality of actors. Local identities (the sense shared by actors of a particular local site that that site is somehow individual and unique and that, as a collective, local actors are included in such a group) were strong and enduring.

Although the relevant dimensions of identities are the psychological and the sociological dimensions (as regards the individual and collective senses of identity), there are related legal and formal aspects which may impact the sense of identity. In particular, the official company names and commercial brands of the acquired firms were typically preserved for many years after the acquisitions, as the ensuing text explores.

As regards the *companies' legal denomination*, two examples are revealing: a plant acquired in Portugal in the mid 1980's only adopted IndCo's name about 20 years later, and Spanish plants acquired in the early 1990s still preserve the Spanish name today. Typically, even in those cases where the official name was changed into IndCo's (such as the Portuguese plant mentioned above), many employees and the external local community kept using the original names for many years after the change – even today. Interestingly, in country C, some employees identify themselves neither with IndCo nor with the group which IndCo acquired in 1998; rather, they still identify themselves with a company which preceded the group acquired in 1998, as pointed out by several Portuguese respondents.

membership. For now, the more current sense of membership as associated with the inclusion in a particular group is used.

Not only were the original names preserved, but there were few efforts to increase the visibility of the group name. For example, in a Spanish plant built in 2001 (long after IndCo's acquisition of the Spanish group, in the early 1990s), a respondent pointed out that only very recently their business cards incorporated IndCo's name and logo, alongside the Spanish name.

As regards *commercial brands*, the overall, long-standing policy has been to preserve existing local brands, due to their high recognition among local market players (in particular, clients). In fact, recognition was far higher in terms of the commercial brands, rather than in terms of the names of the companies that produced or distributed the products.¹³

Identification with the local sites, rather than with the group, was found to have strong links with prevailing rules and beliefs, which when enacted had practical consequences. This local identification promoted the emergence and acceptance of rules with a local focus, which then affected how actors determined appropriate courses of action in practical issues. A member of the Shared Services Centre (SSC) provided several revealing examples¹⁴, such as in the complaint that...

... [For some local people], "what matters to them are the [local] tax statements. 'The group, it's their problem, they'll find a solution'. (...) Three or four weeks ago, we had a situation like that. The [local] person told us 'Here, I do it like this. You guys there [at the centre]... basically, find your way around!' [laughter between researcher and respondent]".

¹³ In a related perspective, the low recognition of the names of the companies favoured IndCo's acquisition plans. Should local companies be acquired and even disappear (by fusion or other means), it was expected that keeping the previous, local commercial brands would preserve the value of their recognition in the marketplace.

¹⁴ Additional examples are provided throughout the remainder of this chapter.

These tensions between local and global identification, concerns and priorities are further illustrated and explored along the text. The quote above makes the point that these tensions were prevalent for a long period, and some still remain today – although, as the interviews also made clear, at a much lower level than a decade ago.

5.2.2.3 Conclusion

During the 1990's, IndCo drastically expanded its industrial presence through international acquisitions, making it increasingly dispersed and, in particular as concerns foreign subsidiaries, quite autonomous and diverse. In general, the corporate centre had a reduced role, based on the definition of broad strategic guidelines and control. So, by the end of the 1990's, IndCo was a rather typical multinational (Bartlett and Ghoshal, 1991).

5.2.3 LOOKING FURTHER BACK: A BRIEF NOTE ON THE PERIOD BEFORE THE 1990'S AND A CLARIFICATION

IndCo's description in this section focused on the 1990's. As regards the previous, 1980's decade (and, for the same reason, as regards decades before that), being a particularly remote period, the potential relevance of a detailed study was considered to be naturally more limited, when compared with the 1990's – even in a retrospective study as this one. As such, the efforts put into researching such a distant past were, comparatively, less intense.

In addition, there were various difficulties in researching the 1980's and before. Few respondents had been at the company before the 1990's. So, obtained insights were more limited, both quantitatively and qualitatively. Fewer respondents could provide

information and the amount and detail of information that each respondent could provide was lesser, in particular due to recall limitations – which, in turn, also potentially diminished information accuracy. Moreover, and importantly, data triangulation possibilities were reduced. Finally, when respondents were asked about the period before the events focused on this thesis (which occurred in the late 1990's and after), they tended to describe the 1990's, rather than previous decades. All these research difficulties diminished the plausibility and trustworthiness of a characterisation of the 1980's and before (see 4.2.2.2, on the concepts of data triangulation, plausibility, trustworthiness and internal reliability).

However, a brief analysis of the 1980's can be made and is not unimportant – in particular because it allows identifying the acceleration of the internationalisation process in the early 1990's as a key factor shaping the characteristics of IndCo. One respondent was particularly useful to characterise this earlier period.¹⁵

Contrary to the insights obtained from the other respondents, this respondent argued that IndCo was, during the 1980's, a quite integrated company, as far as Portugal was concerned¹⁶. Even though the acquired companies maintained their juridical independence, he argued that production, commercial and financial activities were

¹⁵ This respondent had an important position in IndCo's CC for several years, until the early 1990's. His insights about the 1980's were particularly relevant, for four reasons. First, because of his first hand experience in an organisation-wide function. Second, because having left the company in the early 1990's, he had not experienced the major internationalisation period, from the early 1990's onwards; therefore, his views were not influenced by IndCo's later evolution. Third, because he was interviewed very late during the research, after all the fieldwork had long been done and the case study write up was almost finished; therefore his views were compared with the insights provided by all other respondents – which, as mentioned, tended to focus on the 1990's. Fourth, because the entire two-hours interview was focused on the 1980's – something never done in previous interviews, not least because interview time was typically allocated to more recent periods, considered to be more relevant to the research.

¹⁶ As regards the only country beyond Portugal where IndCo had production activities at the time, the respondent confirmed that the subsidiary was very autonomous as regards the Portuguese headquarters. However, this subsidiary represented only a small part in IndCo's activity; therefore, Portugal is the main focus of his (and this) analysis.

planned in a group perspective. For example, as regards the *production* area, production planning had to be coordinated in a group perspective, since several plants were producers of materials to be used by other plants. He recalled that many plant directors had close relationships and cooperated in sharing best practices - although admittedly in a limited extent. In the *commercial* area, even though the companies might have commercial employees located in their sites, these employees were integrated in a central commercial structure (a trading company owned by IndCo, which interfaced the production units and the clients). Several *financial* activities were also centrally coordinated, ranging from capital structure issues to treasury management. Relationships between individual companies and local bank branches were limited to current, transactional issues, and local treasury activities were merely administrative.

Even more fundamentally, the respondent totally and systematically rejected the existence, at the time, of situations as those described above, regarding a strong focus on local issues in detriment to group-level issues, and especially outright, strong resistance from local units towards central directives. Such situations of resistance were simply unimaginable to him, based on his experience at IndCo from the late 1980's and until the early 1990's. Although some insights were common to other respondents (e.g., elementary information systems; finance and accounting transactional activities largely carried out at a local level) and although he recognised difficulties in implementing post-acquisition changes, the overall image was, definitely, not the same that emerged from the other interviews.

It became evident to the researcher, during the interview, that such diverging accounts could not be attributed simply to different personal perceptions, and in particular to the perceptions of this respondent^{17, 18}.

Still during the course of the interview, the researcher hypothesised (and the respondent considered that hypothesis to be very plausible) that the crucial factor accounting for these differences was the intensified internationalisation process, from the early 1990's onwards. By 1998, when compared with the start of the decade, production capacity had been multiplied by more than 10¹⁹. This dramatic increase brought into the company highly diverse companies and plants. In addition, the coordination and integration of the international operations raised incomparably more difficult challenges. This led to what a senior manager described, in a quote above, as an *“amalgam of plants, not a company”*.

Both during this interview and later while writing the case, insights from other respondents were recalled which supported this interpretation. For example, as regards the IT Department, different respondents indicated the internationalisation process as a

¹⁷ Interview-based case study research may naturally generate insights reflecting different perceptions about any particular phenomenon (Yin, 2009). Different perceptions across interviewees are particularly likely when they had different experiences and activities, in different periods. This last aspect may be particularly relevant since, as noted in footnote 15, this interviewee did not experience (and hence could not compare with) IndCo's evolution in the 1990's and beyond. A brief example supports this interpretation. While this interviewee emphasised the coordinated and even centralised practices and organisation of the finance area in Portugal, a senior IT interviewee thus commented on the organisation of the finance function in Portugal: *“[In the early 1990's], plants still had an administrative and financial director. (...) Only later [around 1997] there was the unification of some administrative and financial directors and the accounting area of similar and even nearby plants. (...) That was the start of some centralisation. [So,] that problem also existed in Portugal. Each plant was autonomous. Here in [city X], there was [person Y]; he dealt with [plant in city X], nothing else”*. Although there were no factual contradictions between the two interviewees, the emphases and the evaluation conveyed by each interviewee was strikingly different – hence highlighting the need of drawing from multiple data sources to strengthen the case plausibility and trustworthiness.

¹⁸ An additional research note. The researcher had had a previous brief contact with this individual. At the time, it was clear that he could not relate to the very brief characterisation provided by the researcher – hence prompting the researcher to request a formal interview to explore this apparent puzzle.

¹⁹ Calculations based on data from a public presentation by a senior manager. Other presented figures, such as the growth in the number of plants, countries and employees, are omitted to preserve anonymity.

key factor leading to the adoption of new information systems and the creation of a new, global organisational structure for the IT Department. The increased difficulties perceived by central actors (to be described in the remainder of the chapter) can also be clearly related to the international expansion, in terms of both size and geographical spread, and concerned almost always countries other than Portugal.

Therefore, this subsection highlights that, while some IndCo's features before the 1990's are important to understand later traits (and may occasionally be drawn upon later in the thesis), the characterisation in this thesis about the 1990's and beyond may not be representative of previous periods, since the company drastically changed in-between.

5.3 AN OVERVIEW OF THREE FUNCTIONAL AREAS UP TO THE LATE 1990'S: IT; PRODUCTION; ACCOUNTING AND FINANCE

5.3.1 THE INFORMATION TECHNOLOGY AREA AND IT SOLUTIONS

This subsection takes a mainly descriptive approach to characterise IndCo's technological context and the evolution of the IT solutions most relevant to understand accounting and control at IndCo²⁰. The links between these technological features and the research theoretical issues (including the topic of power) are explored in the following sections.

Until the late 1990's, the systems architecture as a whole could be broadly described as a *bricolage of dispersed systems*. Understanding how this architecture

²⁰ The IT Department organisational structure has already been described in the first subsection. Further analysis about the IT Department, as regards prevailing beliefs, objectives and strategies, is developed in section 6.1.3.

emerged requires going one decade further back, to the late 1980's. An IT respondent provided a general overview of the ISs in IndCo at this time:

“At the start [during the 1980's and early 1990's], there were indeed a number of islands [in Portugal]. At the plant in city X, [the IS] was created from scratch. Company 'A' had one IS, company 'B' had another, the one in city 'C' had another, company 'C' had another...”

Given the disparity of the characteristics and evolution of the various systems, the operational systems, the financial accounting systems and the management accounting and control systems are now separately analysed.

5.3.1.1 Operational systems

Until the late 1980's, operational ISs were *very rudimentary*, especially as regards information for management purposes, and basically included production functionalities and order and sales register. Since production activities were still only performed in Portugal, complexity related to geographical dispersion was not significant.

In the late 1980's, given IndCo's very poor operational ISs and the absence of commercially available solutions for the industry, IndCo hired a large number of systems engineers to develop, in-house, a new operational system. This system initially only encompassed logistics (labelled as the 'SOIC' system); later, a production system (the 'PROLOG' system) was also developed. Since it was a be-spoke system (Longdin, 2000), developed by a large internal IT team, it was highly tailored to fit the specific requirements of the business and of company users, not only when it was first designed,

but throughout the years. With hindsight and a touch of self-criticism, an IT interviewee reflected that...

... “we spent about ten years, until 1999, developing our own solutions, highly according to the users’ preferences, wishes, needs, probably with many ‘flowers’ that a [commercial] package would not implement.”

The operational system was common to all subsidiaries. It provided integration across commercial and production sites, although neither on-line nor automatically: information had to be transferred across the units systems through interfaces (an operation very susceptible to errors, requiring a daily check of error logs). However, and importantly, the common operational system was physically installed *in each site* and it *did not impose uniformity* across plants. In fact, the plants required the development of site-specific functionalities, on the grounds of local specificities. And since there was a dedicated in-house IT team, it was feasible to implement such requests.

These systems were focused on operations and all interviewees, both IndCo’s employees and consultants, considered that they provided sophisticated and suitable functionalities for users. In contrast, these operational systems only had very basic financial functionalities, such as stock valuation, to be used for financial accounting purposes only. And even the actual use of the few existing financial functionalities of these operational systems differed across sites and countries – and in some locations, they were not used at all, as discussed below in subsection 5.5. After this overview about operational systems, the focus now turns to the financial accounting systems and the management accounting and control systems.

5.3.1.2 Financial accounting systems

Financial accounting was supported by *different commercial packages* across countries. This diversity, again, had its origin in IndCo's history of acquisitions. By the end of the 1990's, after the largest acquisitions had been made, there were various types of legacy financial accounting systems: some were completely standalone solutions; others were integrated, but in highly varied ways.

In Portugal, each plant used a standalone financial accounting solution, integrated neither with the operational systems nor with IndCo's consolidation software; a similar situation existed in two other countries. The Spanish subsidiary implemented SAP FI around 1995, but in a project (further discussed in the next chapter) whose scope only encompassed this particular country and that only considered country-specific needs; in addition, some configuration options introduced diversity within the country itself²¹, and information was still introduced into the system at each plant. Finally, the company started as a greenfield project in mid 1990's and the company acquired in country C in 1998 (operating in two countries) both had integrated solutions, but from different vendors: the former, from Ross; the latter, from SAP.

Existing solutions *addressed the needs of local actors*, in particular for financial reporting and taxation purposes at country level, but created *limitations for central analyses*. IndCo's solution for financial accounting consolidation - Hyperion Enterprise

²¹ As analysed in the next section, particularly on page 351, in the Spanish subsidiary, SAP controlling areas ("the basic organizational unit in Management Accounting", SAP, 2005b, p. 26) were defined at a low hierarchical level: the plant level. In addition, cost centres nomenclature diverged across plants. Although these are cost accounting concepts, they are also relevant for financial accounting, given the integrated nature of the solution.

for Reporting²² - directly accessed *none* of these systems. This legacy of diverse systems brought along different accounting structures across locations, in addition to making remote access difficult or even impossible. Therefore, for financial reporting within IndCo, accountants at headquarters had to rely on information produced and sent by each local team and then manually enter that information in the Hyperion consolidation solution. Finally, IndCo's consolidated information was incorporated in the holding-level Hyperion solution.

Therefore, in brief, during the 1990's, and even more after 1998's large acquisitions, the Corporate Centre was confronted with severe limitations as regards accessing, interpreting and consolidating financial accounting information from the various subsidiaries.

In late 1997, the decision to adopt SAP's financial accounting solution (SAP FI) was taken. One year later, a leading international consultancy firm presented a proposal for its implementation, encompassing Portugal and two other countries. The project was approved and started in early 1999. By the end of the year, the decision was taken to develop and roll-out a global model of SAP FI to most remaining countries. SAP FI is one of the innovations focused on this thesis and its in-depth analysis is developed in the next chapter.

²² The Hyperion solution was selected by IndCo's holding group, in order to consolidate the diversified investments of the main shareholder, Mr. A; therefore, it was common to all companies of IndCo's group. IndCo's group had been using consolidation solutions from Hyperion for a very long time, and in the late 1990's a new project around Hyperion was developed, encompassing the entire group (see start of subsection 6.1.3)

5.3.1.3 Management accounting and control systems

Management accounting and control requires both operational and financial information. As described, the operational systems had very limited financial functionalities and were not integrated with specific solutions for management accounting and control. Likewise, existing financial accounting solutions, regardless of being standalone or integrated solutions, neither supported management accounting and control, nor were integrated with specific solutions.

Globally, management accounting and control activities were supported by two systems at two levels: at a *plant level* and at a higher, *headquarter level*. At *plant level*, spreadsheets were the most important tool for cost and management accounting and control. These *Excel spreadsheets* were partly specific to each site and were usually developed by the local plant controller him/herself (although usually based on spreadsheets received from other plants). As a result, the sophistication of the spreadsheets varied across plants, especially as regards their interfaces with other solutions. In some sites, where no Excel interfaces had been developed, the plant controller was responsible to manually gather information dispersed across several sources (e.g., financial accounting systems, operational systems, human resource systems and direct observation of production machines meters). The plant controller then manually entered this information in the spreadsheet. In other sites, where Excel interfaces had been developed – in particular, interfaces with the operational system SOIC-, information entry into the spreadsheets was significantly more automatised.

In these Excel spreadsheets, plant controllers calculated product costs and variances. In the sites where the stock valuation functionality of the operational system

(SOIC) was actually used (not all sites used it, as already mentioned), the costs of finished products were then transferred into the operational system. Additionally, and more importantly, product costs were imported, using an interface, to the consolidation solution supporting management control – mostly for use at headquarters.

At *headquarters*, the management control Department used MicroControl until 1992 and then adopted *Hyperion Enterprise for Management*²³. This solution was installed both at headquarter level and at a plant level (at the computer of each plant controller). The plant controller autonomously entered all the information in the local database of his/her local application; the output of this local application was then emailed to the management controllers at IndCo's headquarters. These would introduce the emailed files in their Hyperion application. Information was then ready for analysis at headquarters level. At the end of this convoluted process, information would finally be available for IndCo's holding Hyperion application.

This subsection provided an overview of ISs supporting operations, financial accounting and management accounting and control. While the focus was on the ISs themselves, it also introduced some of the processes of these functional areas. The next two subsections further characterise these functional areas.

²³ Both solutions were produced by the same company, Hyperion (IMRS, at the time MicroControl was released). Like in the case of the consolidation solution for external reporting, these consolidation solutions for management control were also common to all companies of IndCo's group.

5.3.2 THE PRODUCTION AREA

5.3.2.1 A production-focused company

The production area has always been, alongside the commercial area, the core of IndCo. This was confirmed by all the interviewees who expressed their views on what were IndCo's privileged areas – in terms of both rhetoric and practice. The emphasis on these two areas was found to be one of the overarching, common characteristics across the organisation, as two CC respondents clarified:

“IndCo is always in the plants.”

“The administrative area is accessory [in IndCo]. It has always been and always will be. The important is the production, that you can ship to the customer, that you can place an order to the plant. That is what is essential.”

A revealing, usual expression within the company is *“On top of the machine, is where we manage well”*. This expression colourfully conveys the belief in the focus on industrial activities. One interviewee had a narrow interpretation of this expression, and explained it by the need to go out from the office and into the plant floor. But another interviewee interpreted this expression more broadly, in terms of the virtues of having management processes physically close to the production sites – including support activities, such as accounting, finance and human resources.

5.3.2.2 Diversity across IndCo's production sites

IndCo's plants are specialised in one or just a few particular types of IndCo's basic product – or in components for these products. This product specialisation of each plant inevitably introduced diversity across plants fabricating different products. But

comparing plants fabricating the same type of product allows for more interesting insights. Given the near commodity nature of these products, the variations between production processes across plants fabricating the same type of product are not huge – but they are not inexistent, either.

In particular, IndCo's history of acquisitions favoured the systematic inclusion of plants with slightly different ways to produce the same type of product: different technological levels, different machines, different production processes and, importantly, different people with different expertises. Unsurprisingly, all this diversity compounded into significant diversity in terms of production efficiency. Hence, some diversity across plants derived from IndCo's acquisitions history.

There were also differences in business practices across plants, which were unrelated with, and unaffected by, the existence of a common IS (and eventual plant-specific functionalities). This diversity across plants caused difficulties in the relationship with other parts of the organisation, such as the commercial area. This became clearer when the business processes increased the complexity of inter-relationships across production and commercial units. For example, should the commercial area query several plants for products availability to satisfy a customer order, the response times could vary from a few hours to a few days. Not only this implied a slower overall response to the customer, but it also introduced uncertainty around the time required, lowering the customer service level and satisfaction and

weakening IndCo's competitiveness. For the commercial area, it was difficult to understand and accept the rationale for such diversity²⁴.

However, local specificities typically allowed plant directors to justify the distinct practices. As exemplified by an IT respondent, plants may be specialised in products with different production batch sizes. Larger batch sizes lead to lengthier production times and fewer batches to be planned. This provides incentives for the allocation of less time to production planning and, ultimately, less frequent analysis of new incoming requests from the commercial units.

At a global level, this diversity of practices was considered to be a problem. IndCo organised regular meetings with managers from the various areas and these issues were raised, and the need to have uniformity in practices was stressed. However, changes were scarce, and local, plant-level logics and priorities tended to prevail.

One final example relates production technologies with (lack of) company-wide cooperation and organisational learning. In spite of technological diversity across plants, some of the diversity in plants' performance was attributed to staff's different practices and knowledge level. Optimisation at a given plant largely depended on *ad hoc*, incremental and locally driven efforts, based on local people's experience(s). However, initial attempts to share best practices and knowledge across plants were not highly successful, as a senior manager explained:

²⁴ This example intends primarily to illustrate the diversity within the production area, rather than illustrate conflicts between the production and commercial areas. However, various interviewees did report conflicts between these two functional areas, spanning from the 1980's to the recent years in which the fieldwork was being carried out. However, the analysis of conflicts between these two areas is beyond the scope of this thesis.

“The idea was to make the people in charge of the [most productive] plants [in particular, plant directors] talk to people of the other plants, to transfer their experience. In theory, this works fine. But the power of the people resides in their knowledge – for some people, we cannot generalise. Yes, there were those who were willing to cooperate, but there were others who were reserved as regards sharing their knowledge with the rest of the organisation.”

Although organisational sharing and learning process dramatically improved later, largely based on new technological features and new organisational structures²⁵, these original difficulties revealed that individual and local interests often prevailed over global ones. These two examples (prevalence of local production practices and resistance to company-wide knowledge sharing) clearly revealed the large autonomy and power of local actors and, in particular, the power of plant directors – an important insight explored in the next section.

5.3.3 THE ACCOUNTING AND FINANCE AREA

During most of the 1990's, and like most organisational areas, accounting and finance activities were largely decentralised towards business units. In addition, as already mentioned, in IndCo the accounting and finance areas were attributed a significantly lower priority, when compared with production and commercial areas. Indeed, some accounting and finance limitations and inconsistencies analysed next may be better understood by considering this lower priority. This subsection analyses three main areas in accounting and finance (*financial accounting; management accounting and control; and treasury*) and concludes by arguing that by the late 1990's there was a perceived lack of strategy in the accounting and finance function.

²⁵ Recent machinery allows for an automated control of almost all production variables and provides detailed production information to actors outside the local plant. In addition, a Department dedicated to industrial optimisation (INDBEST) was created.

5.3.3.1 Financial accounting

Most financial accounting activities were typically carried out at plant level, in significantly different ways. The various units used a wide variety of standalone or integrated *solutions*. Additionally (and unsurprisingly, given the variety of financial accounting solutions, their use by local people and the autonomy of the sites), the adopted *charts of accounts* (i.e., the system structures) were not the same across the sites.

Financial accounting *practices* also differed across plants in multiple aspects. As a first example, accountants at different plants might classify a given transaction using different criteria and different accounts. Whether a given purchase of machine parts should be considered an asset or a period cost was an example recurrently mentioned by interviewees to illustrate this diversity. Even if the charts of accounts were similar (an unlikely event during the 1990's, as noted above), accountants from different plants might post a given transaction in different accounts. A CC member described differences practices by 1999, even *after* the implementation of a single integrated system – further suggesting that *before*, during the 1990's, when multiple solutions coexisted, diversity in practices was even more significant:

... “[Before the Shared Services Centre, by 2001,] we already had SAP [for financial accounting] (...). But each country had its own chart of accounts. Some [countries] posted external personnel expenses in the personnel account, others in overheads, in commercial costs... It was a bit like it was more convenient or as they were used to do.”

Interviewees also recurrently mentioned the diverse and often unsatisfactory *timings* of local financial accounting processes, with important consequences as regards financial reporting towards headquarters. Finally, CC interviewees converged in an

overall picture of *poor (in addition to diverse) practices* of financial accounting and control in the foreign subsidiaries, during the 1990's. The following quotations from two SSC members as mere examples of such insights (the second example refers to the circularisation of creditors' and debtors' outstanding balances):

"We had decentralised information, which was often sent with different timings, the [local] teams did not respect [the rules regarding the report timings]."

"Before the SSC, most countries didn't make the circularisation at all. (...) Once, to consolidate at the end of a semester and at the end of the year, we didn't have the information from [a particular country]. (...) Of course, in the report to the Board [we wrote that] '[This country didn't report]'. (...) But in the next year, it was the same thing. (...) Then, we asked for the statements, and receiving them took ages, or never came. Or, if they came, no one understood, they came in such a way that no one understood them..."

The combination of different solutions, different charts of accounts, different practices across locations and practices which in some aspects could be described as poor, caused significant difficulties in consolidation activities at the centre. The centre could not remotely access the varied solutions of the subsidiaries – and, even if it could, it would be faced with different structures, i.e., different charts of accounts. The information received from the various sites was not fully comparable, some of it was not timely, and the centre's limited visibility restricted verification possibilities.

These difficulties and shortcomings resulted in the perception of a *lack of reliability* of the overall process and of the ultimate consolidated accounts. Several interviewees expressed these concerns, ranging from an SSC member who was then a junior accountant, to a manager who at the time already occupied a senior position, whose views now follow, in respective order:

“At a corporate level, we had difficulties in obtaining information. (...) Often times, the way the reports were made... there were always doubts about their reliability.”

“Closing, consolidating the accounts every month... we had Excel spreadsheets back and forth, always without a doubtful reliability.”

Difficulties to consolidate information had been long felt. And after the 1998 acquisitions and the drastic increase of the number and diversity of companies to be consolidated, the consolidation team faced additional challenges, as expressed by a member of the SSC:

“The corporate centre had [set] some [common] rules, but it was very difficult for the consolidation team to consolidate. Very difficult indeed. Lost hours just to get the information - which arrived late. Dealing with intra-group [adjustments] was a headache. And to reach the point of having at least a consolidated balance sheet and profit and loss statement, nights were lost. [Researcher: “Because you had to check if the information coming from each plant was...”]. Respondent: “We didn’t even get to that level. Forget it. [The goal was] to manage to have, on the report day, a minimally acceptable balance sheet and P&L. Because (...) the accounting rules were different. Here, we made reclassification postings (...) in the major items, as regards major figures. Going more into the detail, no. There was no time. Finished. It was impossible for that team to go any further. It was information from so many places, so different, that we had to set priorities. And the priority was: major figures; to ensure that there was some consistency, but [only] with a high degree of materiality.”

Respondents who had been involved in consolidation tasks at IndCo’s centre at this time clearly felt very strongly about these difficulties. They complained about “long hours”, “lost nights” and the “nightmare” of determining intra-group consolidation adjustments. However, apparently, these difficulties and the risk of some inaccuracies of consolidated financial statements were not a high concern, neither to the financial directors of each country, neither to IndCo’s top management. When discussing an SAP

FI feature which would facilitate the consolidation process at IndCo's level²⁶, an IT respondent explained that it had not been implemented in 1998 because...

... "there was no interest in that. Each country was responsible for its accounts. Provided that [the new system] would consolidate in Hyperion [at a country level] – and it had to consolidate, by hand, 'by foot', whatever...-, (...) it satisfied the financial directors of each country, who were able to report the accounts of each independent company. So, there was no one asking for that uniformisation [at IndCo's level]. There was no one. (...) There was not a single person requiring that. Not a single one [emphasis]."

A senior director, once involved in the consolidation process, further developed this view, from an organisational centre perspective. Taking a different perspective as regards the lower level accountants and leaders involved in consolidating financial accounting information, he downplayed the difficulties of the task:

"[Consolidation] required hard work, but it wasn't something [extraordinary]. It wasn't even part of the concerns of management. There was a team who had the obligation to provide consolidated information. So, it took care of that. (...) [Consolidation] got done, and it was even fun. That was not the problem."

This respondent also downplayed the importance of producing consolidated financial accounting reports, in the perspective of legal obligations to be met, and he emphasised instead the importance of non-financial information (e.g., national regulations) for strategic decisions. However, he also valued consistent financial information for decisions in areas such as *"investments, (...) optimisations and (...) benchmarkin"* – and its absence was considered a limitation for top management decision making. He complained about the excessive time and efforts required to produce and interpret the information from the various countries in order to support

²⁶ The feature was a common chart of accounts, to be discussed in subsection 6.1.5.

global management. Moreover, he suggested that an important reason to create a Shared Services Centre (whose main initial function was to carry out, in a uniform and timely way, the financial accounting activities of the subsidiaries) was that, before the SSC,...

“The information management processes, the information, was very weak. It was very dispersed. Very weak, because it did not allow for a view of the whole, it did not have the same criteria, the same principles, the same adjustments. So, it was very difficult to consolidate it in a perspective of strategic information management.”

Another CC manager linked the above insights with the prevalent emphasis on the local level, when he acknowledged...

“the perception that we didn’t have capacity to have consistent information for decision-making, because each one [at a local level] had a different method. Not that there was bad-will or whatever. Simply, each one did as he/she knew and was used to doing, giving total and absolute priority to the country’s reporting, and not the internal group reporting”.

As a conclusion, even at an aggregate level of analysis, the diversity in accounting solutions and routinised practices, compounded with poor local accounting practices, limited the capacity of the centre to have an accurate, reliable, comparable and consistent visibility across the organisation. In turn, this limited visibility contributed to poorer decision-making at the centre and also limited the capacity for the centre to intervene. On the other hand, financial directors of each country were mostly concerned with locally oriented information – and existing systems satisfied their (local) concerns.

Therefore, existing financial accounting systems appeared to better suit the needs of the locals, rather than the needs of the centre – both the accountants and top managers. This situation prevailed throughout the 1990’s – and the 1998 acquisition

further accentuated it. Consequences in actors' power are already clearly perceptible from the above description, but an in-depth analysis is postponed to the next section.

5.3.3.2 Management accounting and control

Since this subsection has already overviewed the ISs of the management accounting and control area, the focus is now on its organisational aspects. Management accounting processes strongly relied on the original inputs of plant controllers. *Excel spreadsheets* were crucial tools for plant-level cost accounting, and the spreadsheets were typically distinct across plants. The *lack of uniformity* went beyond the different sophistication of the interfaces of each spreadsheet with other solutions. Importantly, numerous respondents from the IT and headquarters management control area stressed the lack of uniformity as regards the way costs were calculated, aggregated and presented in reports. One of the sources for the diversity of spreadsheets was the quite *ad-hoc* way that spreadsheets and related knowledge and practices were disseminated across plants, as an IT respondent argued:

“It depended on the way and with whom each plant controller learned. If he came from outside [a certain plant], he probably brought some methodologies and ways of working. If no one imposes new ones, he’ll keep his. If it is a new plant, the plant controller will probably ask for the help of someone from outside, or from who is nearer; and then he will build on the information from the other. Some [plant controllers] are similar, because they learned among themselves. (...) It varied a bit across plants.”

In a similar vein, and echoing the already described lack of coordination at a global level, a senior manager reflected on how costing traditionally developed in an uncoordinated way throughout the company, driven by the experience (and experiments) of people in each site or project, over the years:

“Each [participant in a 2005 SAP costing project] was supposed to have some information about it [costing]. But it was necessary to create, first, a concept of how to do it, the most correct way to do costing. (...) There was a very large discussion, for a very long time, about what was the most correct way to do it. Each one had his own experience. As all of us, at one or another moment in life, had the need to do costing, we all had different concepts.”

Central actors commonly expressed various *concerns* about plant controllers' high autonomy and the limited visibility of the centre over their activities. There were concerns about inconsistencies caused by distinct work methods and criteria and about the potential for manipulation of local information. A respondent from the management control area and two respondents from the IT area thus described these concerns:

“We are sure that, in some cases, criteria are different across controllers.”

“There were even situations in which we could not compare [information from different plants], because one [plant] had its costs calculated in a certain way, it did not incorporate a certain cost component, therefore making its costs lower than those of another plant. But since people, very often, did not know what was behind [the numbers], they said ‘Ah, you’re producing at a lower cost’”.

“The plant controller does not invent. He gets information about sales, materials, a number of things, and then he enters it in the management control system. (...) And then he calculates. But, many times, he calculates using his own rules.”

“[CC management controllers] received the information, analysed it in Hyperion [the consolidation solution for management], assuming that everything was... [correct]. [They] could not go to the source and check the information. (...) One of the objectives of the [SAP costing module] project is to automate the links between SAP and Hyperion for management control, so that the plant controller doesn’t grab a report and transcribe the data. ‘I mistyped a digit, by mistake’... or on purpose! When we say ‘on purpose’, we are not saying that it happens. But theoretically it can happen: by mistake or on purpose, you can manipulate.”

The diversity of cost calculation methods and systems across plants led to a limited possibility for the centre to compare information of different units. In addition, since corporate controllers could not access local sources of information, they could not easily (or at all) check the figures from the spreadsheets reported by plants; in fact, they even had difficulty in identifying the existence of diversity across plants and precisely locate its origins.

Finally, an IT respondent revealed the *lack of capacity* of the centre to *impose* uniform practices, neither through relatively *informal requests*, not through explicit, *formal rules* in procedure manuals. The first example below (further analysed in the last section of this chapter) concerned the (lack of) actual use by plant controllers of one of the few financial functionalities of the SOIC operational system: value stock and calculate variance analysis:

Respondent: *“Not all companies were taking advantage of that possibility, because they preferred to do it through other tools, like Excel. (...)*

Researcher: *Was there any attempt to try to ensure that, at least within a given country, all plants actually used that functionality?*

Respondent: *Some people [from the centre] said that that should happen. But then, in practice, it didn't happen, because they couldn't pass that message almost as a law, obligatory. And so [controllers in plants] kept thinking 'OK, as long as this is not...' [compulsory, we won't do].”*

“There was a procedure manual for management control. But not all [plant controllers] did in the same way.”

In sum, in the management accounting area (like in the financial accounting area), central actors had limited capacity to have an accurate, reliable, comparable and consistent visibility over local units and, therefore, over the company as a whole. In

turn, this limited visibility contributed to poorer decision-making and control by these central actors and also limited their capacity to intervene. Like as regards financial accounting, the power consequences of this situation are analysed further below, in the next section.

5.3.3.3 Treasury

Treasury was one of first areas where moves towards centralisation were taken in the finance area, as already mentioned. Notwithstanding, many treasury activities were still performed locally during the 1990's (and some even during the first half of the following decade). Treasury roles of the centre were basically restricted to planning and distributing the financial resources to the subsidiaries. However, even for this centralised treasury planning, the centre still had to rely on information and decisions originating at plant level. A CC member thus illustrated the dependence on information provided from plants:

“Take the example of the Corporate Centre producing a treasury report with estimates. Instead of that report being produced, from the start to the end, by the Corporate Centre, probably more than half of the report was prepared by the plants. This might cause the loss of some input, or of some knowledge of the corporate area about the reality at the plant level.”

The decision about which creditors should be paid and by which amount was also attributed to local actors (in fact, this still happened at the time of the fieldwork). They would then request headquarters the necessary funds to be transferred to the banks which worked with each plant. Finally, the payments to suppliers and workers were locally executed.

The importance and prevalence of local operations was sometimes reinforced by the importance and non-transferability of local inter-organisational relationships. For example, Spanish plants typically had local arrangements with regional banks, rather than with larger banks with a national presence (in the Spanish banking industry, regional banks were important players during the 1990's, as depicted by García-Marco and Robles-Fernández, 2008 and Grifell-Tatj and Lovell, 1996). As recalled by a senior manager,

“In Spain, the plants worked with the ‘Cajas’, with the regional banks, and that was a very local relationship. (...) The relationship and the trust established between the plants [and the ‘Cajas’] facilitated a lot (...), and it was difficult to achieve it in a centralised way. Until we gained size to start working with the large banks, the companies leveraged [on those local relationships] a lot, and there was basically no way around it.”

The atomised, regional structure of the financial sector in Spain promoted the relevance of local-level inter-organisational relationships, which were difficult to be replaced by central actors. Since central actors could not, before the company started working with country-wide banks, propose alternative, global arrangements, the position of local actors was reinforced.²⁷

Therefore, in spite of the early moves towards centralisation of treasury-related activities, including treasury planning, during the 1990's the centre still had limited direct access to local information. Such limited access made the centre dependent on the locals and diminished central knowledge about the subsidiaries.

²⁷ A Spanish respondent restricted the scope of local arrangements exclusively to operational matters, excluding financing operations – i.e., in line with the situation in Portugal. This is an apparent contradiction with the previous quote. However, the researcher attributed the description of this Spanish respondent to a later stage, after the company had started relationships with country-wide banks. The indication, by this Spanish respondent, of a particular country-wide bank as one of the company's banks supports this interpretation, which dissolves the apparent contradiction.

5.3.3.4 (Lack of) strategy for the accounting and finance function

Many interviewees suggested that, in the late 1990's, there was no explicit long-term strategy for the accounting and finance function. The generalised opinion was that top management did not envisage any changes in the structure of this area – or, at best, it did not make it clear to lower level employees. When interviewing a member of the SAP FI implementation team, the researcher asked whether the organisation of the finance function in a particular country was very different from what the group desired. The interviewee quickly and plainly clarified that...

... “what was desired was not clear. We were never told that” (approximate quotation).

Similarly, there was no explicit strategy about the information systems supporting the accounting and finance function, as two other members involved at different levels in the SAP FI project, clarified:

“There were still no directives about the future strategy of the financial area and its information systems.”

[Initially, in 1998,] “...we chose SAP in the financial area still without a strategic vision. (...) The choice of SAP FI did not follow any strategy, (...) [except for] a uniformity from a point of view of technology, ISs-oriented.”

However, around 1997-98, a movement emerged in Portugal towards uniformity across the sites, and which then evolved into a gradual centralisation. Accounting and finance teams (up to a Financial Director level) of two nearby industrial and commercial sites were aggregated into one single back-office²⁸. A small scale centralisation, at a

²⁸ Although other back-offices remained in operation for a few additional years in other Portuguese sites, centralisation continued and culminated, in early 2001, in the creation in Portugal of an SSC for most countries where IndCo operated.

regional level, was implemented and the results suggested that it was possible to decrease costs by increasing efficiency, without major losses in the services provided to individual sites²⁹.

In spite of this small scale centralisation process in Portugal, the overall picture during the 1990's was still one of decentralisation and diversity across various countries and plants in terms of the organisation and systems of the finance and accounting area. Importantly, this centralisation move was not announced as, and it was generally not considered to be, a precursor of any intended and defined company-wide structural change³⁰. This generalised perception of a lack of strategy for the accounting and finance function had relevant repercussions in the way the ISs in this area were designed and implemented, as analysed in the next chapter.

²⁹ One respondent stated that there were local resistances to this centralisation process, while another respondent clarified that these resistances were not huge and the process was relatively unproblematic. Both respondents and a working paper (written in 2002; reference omitted for confidentiality reasons) indicated that this first centralisation move had been a successful one. However, the researcher did not have the opportunity to gather enough empirical evidence on these processes, which occurred even further back in time. So no attempt is made to explore these processes here.

³⁰ There was total consensus among interviewees that company-wide centralisation through an SSC was still not considered by anyone, at this stage. On a different tone, one respondent from a plant suggested that this first centralisation move was a "pilot-test", but he clarified that this hypothesis was merely his perception. He further added: "[There was no plan,] not that I recall. But these things are more or less guessable. (...) These kinds of evolution are not spelled out. Of course, top managers know, but those in the local sites [may only] guess what is going to happen.". Similarly, an IT member involved in the project to implement the financial accounting module of SAP (SAP FI) claimed that there were indications towards centralisation at a country level - though not at a company-wide level. However, the same respondent also indicated decisions in the SAP FI project that "showed that there was no great certainty of what was desired" among team members. Finally, the researcher queried a senior IT respondent if the decision to develop one single model for SAP FI derived from a generic orientation towards an increasing uniformity, regardless of whether that orientation was explicit or merely anticipated by participants; the reply was a straight and clear "No.". The SAP FI project is analysed in the next chapter.

5.3.4 CONCLUSION AND A PARADOX: THE LIMITATIONS OF FORMALLY POWERFUL, CENTRAL ACTORS IN THE LATE 1990'S

This section provided empirical information which, as a whole, reinforced the initial portrait of a decentralised, autonomous and diverse organisation. Existing practices, beliefs, identities, information systems and organisational structures, largely a legacy of the company's history of acquisitions, satisfied the needs of the actors at plant level – in spite of financial and control practices which may be considered as poor.

However, there were significant difficulties for actors at a corporate level. Central direct access to local information was difficult or impossible. The corporate centre had to wait for, and rely on, information produced at the plants; in addition, such reporting was often not timely, and occasionally some information was not reported at all. Information verification capabilities were reduced and there were concerns about data reliability, due to either unintentional flaws, intentional distortions or merely lack of local interest in the information requirements of the corporate centre. At the corporate centre, the level of information detail was low and the knowledge about the plants was limited.

As summarised in a quote above from a CC respondent, the difficulties felt at the corporate centre created...

...“the perception that we didn't have capacity to have consistent information for decision-making”.

Such information difficulties were also clearly associated with control limitations. Discussing how stock control was performed in the past, based on local

Excel spreadsheets rather than an integrated solution, two SSC respondents agreed that in the past...

Respondent #1: “Stock control, e.g., was very low, very low indeed.

Respondent #2: Yes.

Respondent #1: *There were often, product codes with negative stocks. (...) But since we started an application recording the stocks flows and the valuation of each product, [the lack of control] was over.”*

In addition to these *systems-related problems*, this section also identified *people-related difficulties*. The high decentralisation, autonomy and diversity of local units was associated with the prevalence of *rules, beliefs and identities* emphasising *local level issues*. This local emphasis was accompanied by a lack of concern and identification with the organisation as a whole and, in particular, with the organisational centre. The following quote of a CC respondent expresses this clearly:

“each one (...) [at a local level gave] total and absolute priority to the country’s reporting, and not the internal group reporting”.

As a conclusion, the overall situation affected the *capacity* of decision making and control of actors situated beyond the local settings and, therefore, the *capacity* of those actors to effectively intervene at local levels. Given the adopted conception of power as a *capacity* – a *contingent* capacity (section 3.2)-, it became clear that power issues were involved. The described situation had consequences over the *distribution of power* across the organisation, among the various actors. In particular, some *formally powerful actors* were confronted with a number of important *limitations*. Addressing this apparent paradox is the focus of the next section.

5.4 AN ANALYSIS OF POWER CIRCUITS UP TO THE LATE 1990'S

This section provides a theoretically structured answer to the first research question, which intended to *explain why formally powerful, central actors at the case study organisation were confronted with power limitations*. This section starts by identifying the organisational actors considered to be the most relevant for this research, by addressing the question “Who *are* the powerful?” (Seal, 2003, 95, emphasis in the original) – a question which, as noted, does not have a simple answer and raises an apparent paradox. Consequently, there is a need to characterise the power of some actors, and the lack of power of other actors; to explore the ways in which power was created, preserved and withdrawn by some actors, while other actors failed to achieve that. I.e., it requires addressing the question of ‘*What caused* (or limited) power?’ (Clegg, 1989; see subsection 3.2.4). The three following subsections characterise the power that the prevailing configuration of circuits of power attributed (or not) to those actors within the actor-network. They separately analyse the three types of circuits of power in IndCo up to the late 1990's, and how those circuits of power attributed (or withdrew) power to particular actors. A concluding overview ends the section.

5.4.1 MAIN ACTORS, THEIR POWER AND ITS SOURCE - AN INTRODUCTION

Exploring the empirical material allowed to identify three organisational actors which revealed particularly interesting characteristics in terms of their power within the actor-network. The first actor is IndCo's chairman and majority shareholder, Mr. A. The second is a collective actor, encompassing the actors at the corporate centre and the remaining key top managers. The third is also a collective actor, encompassing the actors at subsidiary and plant levels, and the plant directors in particular. Due to several

similar characteristics, the first two actors are typically analysed together, as actors related with the organisational centre. In turn, ‘*local* actors’ correspond to the concept of ‘types of people’ (see section 3.4), who have the (contingent) capacity, through their activities, even if not in an explicitly organised and intended collective way, to produce certain effects within the actor-network.

5.4.1.1 Two central actors – Mr. A and IndCo’s top management and corporate centre

The *first identified actor*, Mr. A, as longstanding and actively involved chairman and majority shareholder of IndCo and its group, had unchallenged formal power over the entire group. A senior manager who worked with him for many years highlighted that Mr. A had a particularly significant intervention at IndCo, when compared to other businesses of the group:

“[Mr. A’s] participation had some common aspects [across the various businesses]. Those common aspects were to be up to date, to intervene in the strategic definition of the various businesses, to have an important role as regards motivation and evaluation of human resources; to have a word as regards the allocation of financial resources. (...) As regards a greater executive intervention in business decisions, I think there was clearly more so at IndCo than in the other companies, playing very executive functions in certain periods.”

However, Mr. A remained in Portugal after the move to Madrid (in the sequence of the acquisition in Spain in the early 1990’s) of all key *top managers and the corporate centre* – the *second, collective actor* identified. The geographical separation of these two actors put into question the perceptions about what constituted IndCo’s organisational centre and the relational power of these two actors within the global actor-network. Interviewees did not agree, or were even inconsistent, over the actors which should be considered as ‘central’ actors and as constituting the organisational

centre. When referring to the organisational centre and to ‘central actor(s)’, interviewees might indicate: the individual actor Mr. A, located in Portugal; the collective actor of the corporate centre and top management, located in Madrid; or may explicitly identify this duality. So, regardless of (or actually, and more accurately, in line with) the diverging views among interviewees, these two coexisting ‘centres’ were identified as key within IndCo’s actor-network, during most of the 1990’s.

Nonetheless, the wide formal power attributed to Mr. A due to his majority shareholder and chairman positions was confronted with some obstacles. A CC member presented the following view:

“[In terms of formal and ultimate decision power], the decision power was in [Portuguese city where the group holding - and Mr. A’s office - was located]. [However,] de facto, [the decision power] was in Madrid, because [the Portuguese city, i.e., Mr. A and the staff located there] could only provide an indication but, in practice, it didn’t have the minimal conditions and means to make an adequate follow-up, in order to verify if the defined indications and strategies were actually being followed, at the desired speed, at the desired timings, in the desired ways. It didn’t have the slightest chance to ensure that.”

Before going into more detail, it is interesting to note that, apparently, the most formally powerful actor experienced some power limitations by the end of the 1990’s. The quote above contributed to the identification and separation of these *two ‘central’ actors*: Mr. A; and the *remaining top management and corporate centre located in Spain*. The analysis now turns to the third identified, collective actor: *local actors* at plant level and, in particular, the *plant directors*.

5.4.1.2 The local actors

During the 1990's, *plant directors* had a considerable range of action and *autonomy*. As amply illustrated in this chapter, many plants were virtually independent companies, functioning in many ways independently from the rest of the group. Such decentralisation and autonomy reflected the company's history of growth through acquisitions, both in Portugal and internationally, but it was also endogenously promoted. In the late 1980's, IndCo designed and built from scratch a large plant in Portugal "almost as an independent company", as described by a plant level respondent:

"It was something isolated from everything, it operated as a company, almost as if it did not belong to IndCo. It had its own General Manager, all its structure, a Marketing Director, sales support... It was a kingdom of its own."

In addition, decentralisation and autonomy also reflected a broader strategy followed at the start of the 1990's to implement a product-based organisational structure, in which each business (based on a type of product) would be managed independently³¹. A working paper written in 2002³² quoted a manager stating that "approximately, in 1992, there was a total decentralisation" [of decision power], "i.e., top managers were placed in the factories, at the level of operations". Such decentralised organisational structure had consequences over the formal powers of those in charge of the plants, as a senior manager stated:

"The concept of a plant, not as a business unit, but as a production centre, was what always caused us more problems. Many times, the plant directors (...) considered themselves and were considered as General

³¹ In so far as most plants only produced one type of product, this move further contributed to a greater diversity across plants. However, it was soon generally recognised within the organisation that commonalities among the types of products far exceed differences. Therefore, this product-based organisational structure was short lived.

³² Reference omitted for confidentiality reasons.

Managers [vocal tone suggesting the high importance attributed to plant directors], who controlled a number of things [functional areas].”

Insights of central and local actors with a long history in the company suggested that plant directors controlled and deployed resources at a plant level. This typically allowed them to obtain a favourable outcome in particular interactions with other local actors – naturally, hierarchically inferior to plant directors. Moreover, plant directors did have considerable influence *beyond* hierarchically inferior actors. For example, an IT respondent, quoted in p. 304, acknowledged that until 1999 they had highly adapted the ISs to users’ preferences (including plant level users), designing what he called many “flowers”. Some interviewees interpreted that high degree of adaptation as reflecting local actors’ power to mobilise IT design to suit their purposes, neglecting organisation-wide interests, as implicit in a senior manager’s criticism:

“IT has to be a supplier of services to the organisation, rather than a supplier to the plants.”

The situation in the 1990’s can be even more clearly grasped by examining some *recent* examples of difficulties of central actors – and resistance of local actors - which still reflect this historical legacy. Respondents’ examples of occurrences at the time of the fieldwork, rather than the late 1990’s, are particularly significant since those respondents also highlighted that in the late 1990’s there were *even greater* difficulties and limitations of central actors and a greater power of local actors, particularly of plant directors.

For example, some respondents argued that, more recently, a more inflexible approach was being taken in ISs roll-outs across the plants. However, an IT respondent described that the current approach consisted in keeping the overall model, while still

adding specificities needed in particular countries and local sites. Moreover, and significantly, an IT member admitted that, still in recent years, during operational ISs roll-outs, the IT team was confronted with the difficulty that...

... “[in a roll-out to plants], if the model embedded in the system does not adapt [to the local characteristics of the plant], we cannot convince the plant manager (who, in turn, always has the support of that country’s top management) that he has to change, because the system is configured this way and because country C (e.g.) operates that way. That’s the worst you can say. (...) We [IT] don’t have the power, and we don’t have the support of the organisation itself. (...) There is nothing to do, is there?”

Similar situations of local actors succeeding in questioning and challenging central orientations occurred in other functional areas, such as accounting and finance. Again, and significantly, this still occurred at the time of the fieldwork. This chapter has already provided several examples, such as the following quote from a SSC member on page 297: *“The [local] person told us ‘Here, I do it like this. You guys there [at the centre]... basically, find your way around!’*. The following quote from the same respondent is revealing:

[About the centralised scanning of documents as a part of the accounting process,] “Countries can, at any moment, say ‘No way, we don’t do any of this [centralised scanning]. We are going to decentralise’. And that is happening in one country. (...) ‘We don’t agree with this. Theoretically, we were supposed to be doing it, but we never did it quite like this. And now we make it clear that we are not going to do it and each plant will scan its own documents. End of story’. And this is a problem we have today. We have this in our hands” [suggesting this is a hot and difficult issue].

Therefore, local actors, individually or in coalitions assembling actors from several local levels (such as the plant and the country level), often managed to attain their objectives in concrete interactions with central actors. Local actors often managed to challenge and even prevent global projects and objectives to be developed as planned,

and enforce initially unplanned and undesired (from the central actors' perspective) local adaptations.

So far, a theoretically precise approach to the notion of power was deliberately not adopted to analyse the empirical data. The objective was to achieve a delicate balance, between introducing the empirical data in an intuitive way and in a language as simple as possible, and still avoiding any theoretically inaccurate characterisation. A more theoretically precise analysis is now developed.

5.4.1.3 Conceptualising this introduction to actors' power – the need to find the causes of power

An apparent *paradox* was presented at the end of the previous section. *Why were central, formally powerful actors confronted with limitations* to achieve their interests, although they were capable of controlling and deploying important resources?

The concepts of power in section 3.2 are useful to make sense of the empirical insights. The limitations central actors experienced represented a lack of power, in as much as those actors did not have the power *to* have visibility, monitor, control and influence local actors and relations in the extent and ways they desired. Their *capacity* to produce intended effects was *limited and contingent*. In turn, the limitations of power of central actors, and the power of local actors, were not intrinsic to them, as (individual or collective) actors. Rather, it derived from factors *external* to the actors, influencing their power, in line with the conceptual perspective of 'power *and* its cause' (rather than 'power *as* cause'). And the examples and analyses so far have already suggested that the explanation of some achievements, or failures, is not only restricted to actors' *episodic*

control and deployment of resources (the most intuitive and commonsensical aspect of power, and more visible in concrete social encounters).

Therefore, other types of *causes* of power have to be sought. Indeed, some examples, especially at the start of this section, have already hinted that existing dispositions of local actors and existing techniques did not promote the attainment of the objectives of central actors; on the contrary, dispositions and techniques might play in favour of local actors' interests.

Clegg's framework of three circuits of power is now used to structure the remainder of the section and provide a more comprehensive explanation. The section resumes and develops the discussion about the *episodic circuit* of power, based on the control and deployment of resources. Then, it analyses the structural factors setting the standing conditions of episodic power exercise, by analysing the *circuit of social integration* (based on prevailing rules of meaning and membership) and the *circuit of system integration* (based on techniques of discipline and production).

5.4.2 CIRCUIT OF EPISODIC POWER

This subsection focuses mainly on the circuit of episodic power involving the individual actor, Mr. A, IndCo's majority shareholder and chairman. Naturally, circuits of episodic power exist throughout the organisation and between all its actors (and not only as regards Mr. A), across the myriad of encounters during actors' social relations. But several reasons justified focusing on Mr. A. First, and most important, the virtual total dominance of Mr. A within this circuit of power is theoretically relevant, since it contrasts with limitations as regards other circuits of power. Second, some episodes of

power exercise by Mr. A had far reaching organisational implications, both in terms of their geographical and organisational breadth and in terms of their structural, long-term impacts. Third, it would always be, given access and time limitations, more difficult to gather evidence on episodes of power exercise at lower organisational levels – which by nature occur throughout the entire company, involving the thousands of IndCo's employees. Not that no evidence was found, as several insights in this chapter have already shown. However, evidence was more dispersed, as fragmented pieces on inherently dispersed phenomenon (episodes of power at lower organisational levels), across diversified topics. Given *all* the above reasons, the researcher opted to concentrate his efforts on the episodic circuit of power involving Mr. A. The potential research bias is acknowledged, but the research choice is considered to have been appropriate, both on theoretical and pragmatic grounds.

5.4.2.1 Mr. A's episodic powers

Empirical insights left no doubt about Mr. A's great capacity to achieve his objectives in concrete social interactions in which he directly intervened. Many sources indicated this, such as interviewees, direct observation of employees' behaviours reacting to indications from Mr. A, the researcher's personal experience while at IndCo, and general knowledge about the company and Mr. A (gathered through publicly available sources). Collectively, these sources indicated that when Mr. A. became directly involved in particular situations (episodes), his will was typically followed and enacted by the remaining actors of the network.

Some heterogeneous examples suffice to demonstrate Mr. A's power, when mobilised at particular episodes. Unsurprising examples relate to strategic decisions in

which a majority shareholder and Chairman may be expected to influence. In IndCo's case, this influence was indeed very significant in crucial decisions. The large 1998 acquisition and the ambitious restructuring plans of the late 1990's were, more than merely influenced, "clearly led by the shareholder", as stated by a CC manager.

Mr. A's personal intervention was at times crucial to overcome particular obstacles or address difficult situations. E.g., an SSC member recalled that a slower than planned construction of the SSC offices started compromising the project. And "*only when Mr. A [intervened], (...) only when there was indeed a very strong pressure, construction was accelerated*". The selection of top managers was firmly in his hands, and at occasions he implemented drastic changes. An IT respondent exemplified:

"He called all IndCo's Directors (...) during a weekend. He called [the then CEO], who was considered as having the highest position and consideration, and (...) he withdrew him from all his functions, everything; he turned from 'the best' into 'a beast' just like that, over a weekend. [Note: The expression "from 'the best' into 'a beast'" is a direct translation from the Portuguese version, a very informal equivalent to 'fall from grace']".

A senior manager also recalled that "*During meetings, Mr. A may be extremely brutal (and that is publicly well known)*" (approximate quotation) - a manifestation supported on his formal power, in concrete episodes and in the context of the social relations established within IndCo.

This list of empirical insights concludes with a first-hand example regarding 'car etiquette', of little importance in itself but meaningful to characterise Mr. A's episodic use of power, and how such episodic exercises of power were perceived by other IndCo's actors. The researcher once parked his car about half a meter beyond the

delimited parking space, at IndCo's headquarters. When Mr. A spotted that, he called the security guard so that the vehicle owner would move it to its proper location. (Needless to say, the researcher promptly relocated the car.) At the time, the topics of power (chapter 3) and rules (chapter 2) had still not emerged, so the researcher did not attribute particular research relevance to this power exercise and to the underlying the parking rule at stake (e.g., recalling section 2.3.1, the researcher did not clarify whether the rule was formal or informal). However, the reactions of IndCo's employees sitting in the open space next to the researcher were meaningful. They clearly revealed that, even in seemingly unimportant issues, Mr. A did not compromise, established rules were meant to be enacted and that any episodic exercises of power were supposed to be swiftly accepted and complied by the targeted actors. I.e., this example is not only significant in its episodic nature, but in particular because it reveals the generalised acceptance of a rule of membership³³ regarding how to behave in a situation of an episodic exercise of power by Mr. A.

The *circuit of episodic power* corresponds to this characterisation of Mr. A's power. These episodic exercises of power by Mr. A, within the social relations he established with members of IndCo's actor-network, virtually always resulted in the attainment of Mr. A's objectives in those particular encounters and situations.

It is worth noting that these examples required the *actual involvement* of Mr. A in an exercise of power, through either the actual deployment of resources or the explicit or implicit threat or promise of deploying them, given his control over those resources. This highlights the importance of *other actors'* perceptions about the possibility and the consequences of a potential deployment of resources, in a particular

³³ Rules of membership are a part of the circuit of social integration, and are analysed next.

episode, as discussed by Bachrach and Baratz (1963). Their following insight is particularly relevant: “the successful exercise of power is dependent upon the relative importance of conflicting values *in the mind of the recipient* in the power relationship” (p. 633, emphasis in the original). Adopting these authors’ terminology of actors A and B, it is crucial to create the firm *belief* in actor B’s mind that actor A will (surely or if necessary) deploy certain resources A controls in the disadvantage of B, and that those resources will affect values which B considers to be more important than those which will be sacrificed by B’s compliance.³⁴

This perspective highlights that acceptance by, and dispositions of, those subjected to power are crucial – hence relating the episodic circuit of power with the circuit of social integration (see next subsection). Additionally, the legal protection and rights supporting the (potential) exercise of power are also crucial – a relevant link between the episodic circuit of power and the circuit of system integration (Ribeiro, 2003) (see subsection 5.4.4).

However, in spite of the numerous examples provided above of successful exercises of power, Mr. A’s exercises of power cannot be *guaranteed* to be successful in every episode based on control and deployment of resources. Resources (and the control over such resources, as well as the capability to deploy them effectively) are *unlikely* to be *unlimited*, absolute and totally unchallengeable – even in the case of Mr. A. The possibility of resistance from other actors, failing supporting factors or adverse exogenous factors cannot be *a priori* excluded, and any given outcome can never be

³⁴ It is acknowledged that the language of As and Bs is, clearly, not in line with Clegg’s framework. However, it was used here merely because of its simplicity and, importantly, because it was being used within the context of the episodic circuit of causal power. Even so, the following paragraphs make clear that such usage does not mean the endorsement of the classical metaphors of actors A and B and the mechanical clashing of billiard balls. This episodic circuit goes beyond simple interactions between individual actors, taken in isolation, and it is intrinsically linked with the remaining circuits of power.

totally secured. In addition, episodic exercises of power take place in particular *standing conditions*, in a particular time, space and social setting. These standing conditions are unlikely to be under the full control of any actor – even Mr. A. In particular, outcomes depend on the network of social relations and how these relations are stabilised by the other two circuits through which power flows: *established rules* (of meaning and membership) and *technical conditions*.

The above analysis already depicted rules of meanings and membership and technical conditions prevalent across IndCo in the 1990's. These rules and technical conditions represent the second and third circuits of power in Clegg's framework: the circuits of social and system integration, respectively. Together, they defined the standing conditions in which episodic exercises of power occurred. The next two points analyse how these established rules and technical conditions promoted or made difficult the attainment of Mr. A's objectives.

5.4.3 CIRCUIT OF SOCIAL INTEGRATION

The circuit of social integration consists of the prevailing rules of meaning and membership. Returning to the detail of 'car parking *etiquette*' described above, the smiles and comments of the employees who also heard the indication for the researcher to move the car suggested that such infringement could only happen to an 'outsider' or a 'new kid on the block', unaware of a widely known and accepted rule by 'inside' organisational actors! In fact, after the researcher was warned about the lack of precision in parking his car, he subsequently noticed that all other cars were indeed parked within the delimited spaces. Certainly no employee wanted to draw Mr. A's attention for this particular reason. Therefore, the meaning of 'correct' parking seemed

to be clearly and consistently understood by organisational members at IndCo's headquarters and actual parking practices were consistently in line with such meaning – in Clegg's terms, these related rules of meaning and membership were consistently interpreted, accepted and enacted (see subsection 2.3.1). In addition, the other actors' reactions to the order of relocating the researcher's car were revealing that, in addition, complying with Mr. A's orders was another firmly established rule of membership.

Beyond this particular event, it was clear to the researcher that there was a long-standing, widespread, deeply seated, taken-for-granted and consistently enacted rule of membership that Mr. A's orders and preferences were indeed to be taken seriously and followed by organisational actors.

Only very few (and senior) interviewees have expressed minor comments which contained, and most times only implicitly, some reserve or criticism regarding particular decisions or attitudes of Mr. A. Obviously, these comments were made with the huge benefit of hindsight – and, in addition, were made to the researcher, not to Mr. A himself. In addition, it is naturally impossible that all decisions of a person running such a wide organisation for several decades were, all of them, immune to failure, criticism or simply plausible alternatives. Finally, although the researcher had limited insights about actual debates between these interviewees and Mr. A, the researcher has little doubts that whatever decisions resulted from those possible debates, the interviewees would indeed attempt to implement them.

Apart from those minor and natural exceptions (or, more precisely, nuances), the overwhelming insights remain: there was (and there still is) a long-standing, widespread, deeply seated and taken-for-granted rule that Mr. A's orders and

preferences were (and still are) to be followed by organisational actors; and such rule was indeed (and still is) consistently enacted.

However, episodic exercises of power of one man, as well as a single and generic rule of following his orders and preferences, are inherently limited. In particular, they are limited in shaping everyday behaviours, and in shaping additional rules to cover all areas of organisational life. A senior manager clearly acknowledged the limitations of episodic exercises of power:

“We try, as much as possible, to avoid to command, because normally we prefer to involve the people in the processes.”

Naturally, episodic exercises of power and that generic rule are even more limited in such a large and widely dispersed company as IndCo. The senior manager continued:

“A change [in the purchasing process] that in a small company should be no problem, we would tell the person of the purchasing area ‘From now on, it’s like this’, and on the following day it would be functioning... here, it can take months, until the process has been ‘bought’ [by actors], implemented and is [finally] functioning”

The importance of organisational actors having appropriate *dispositions* is very clearly acknowledged. What is at stake here is the mobilisation of dispositional power in order to try to secure desired outcomes. In Clegg’s framework, achieving such dispositional power depends on fixing appropriate rules of meaning and membership.

Going back to the 1990’s, prevailing rules of meaning and membership across IndCo were not particularly supportive of Mr. A’s (and other central actors’) objectives and preferences of having control and intervention over IndCo’s activities – in addition

to company-wide financial objectives. Illuminating empirical insights have already been presented, and more are presented next. Altogether, they suggest the prevalence of rules in line with a decentralised, autonomous and diverse company, in which the local objectives and perspectives were paramount and which, at times, put at stake benefits for the group as a whole.

5.4.3.1 Rules of membership

Empirical insights suggested several examples of *rules of membership*. A broad, general rule concerned attributing a high priority to the ‘core’ areas of commercial, and, in particular, production activities. The characterisation of a ‘production-focused company’ (section 5.3.2) was synthesised by a CC respondent, quoted in page 309: “IndCo is always in the plants”. Such longstanding local level focus was also implicit in the traditional expression at IndCo that “on top of the machine, is where we manage well” (quoted in the same section), suggesting that management processes should be physically close to the production sites. About this expression, an IT interviewee argued that this orientation was particularly representative of past periods, when he thus commented:

“I think that, at the time [1990’s], that line of thought was more prevalent. It invokes an operational, day-to-day management, rather than a more strategic management, on top. The link between the operational base and top management was perhaps not as strong as it is today. That is true.”

The generalised agreement about the importance of commercial and, in particular, production activities had, nonetheless, consequences as regards a *broad rule of membership* of local actors which *prioritised local issues, rather than organisation-wide ones*. When local actors enacted such rule during their everyday organisational

life, in their organisational area, they adopted behaviours more conducive to the *attainment of local objectives, rather than global ones.*

This general rule, prioritising local issues, is linked with the insight that *local identities tended to prevail* over an identification with the organisation as a whole, IndCo. In more extreme cases, as in the country where the acquired country C subsidiary was also present, plants competed among themselves over orders from the same clients, damaging global profit margins (if no other negative consequences arise)³⁵. A less extreme case is reported by a local actor about the persistence, still nowadays, of local priorities over company-wide interests.

“Recently, the company [i.e., centrally] ordered a redistribution of orders among plants, to equilibrate activity levels. Depending on the plant, that redistribution is easier or more difficult. There are plants which resist that orders are taken away from them. And should it be an activity that requires the support of the plant which will lose the orders – due to raw materials, e.g., the plant will resist or not according to the attitude of the plant director, as regards facilitating the transfer of that order to another plant. That happens. There are all sorts of situations. In general, I think there is a positive disposition towards thinking about the group. But there are very ‘localistic’ situations.”

“There are plants which clearly do not agree, accepting doing activities which are detrimental to them in order to benefit another plant and the group as a whole. First, comes the plant, locally. Second, locally. And third, OK, let’s think about the group. [Laughter]. There is great variety across plants.”

It should be noted that this description concerns the recent period when the fieldwork was being conducted, whereas in the past – such as in the 1990’s – these

³⁵ The kind of dispute between plants over a given customer order was not likely to have positive effects in terms of incentives to further improve the operations and management of the involved plants, as suggested in some literature promoting the benefits of creating internal competition within a group (e.g., Takeuchi *et al.*, 2008). This dispute basically represented of a ‘win/lose’ situation, producing a worse aggregate financial result.

dispositions and actions reflecting a local focus and priority, at expense of organisation-wide interests, was more acute and prevalent, as highlighted by the same respondent.³⁶

The same respondent alluded to the importance of *local rules of membership*, of what employees considered as appropriate actions as members of their local unit - or, more fundamentally, as actors in quest for membership, for being included, accepted, retained and promoted within that local unit (Munro, 1999).

“At plant level, it depends on the person in charge of the plant, on the way he plans things. It depends on how he transmits [to others]. (...) We can tell very clearly that people react to situations depending on what [attitude] received from his/her boss.”

The fieldwork identified that some rules prevalent at a local level required a given behaviour, while global rules required a different one. Moreover, the fieldwork provided numerous insights that suggested that local actors often enacted local rules, overlooking global ones, as they privileged, and sought to ensure and protect, their local level membership. The identified prevailing rules of membership tended to be *functionally specific*; therefore, the financial and the production areas are separately analysed.

At a *local, financial level*, the priority of many sites resided on the production of *local* accounting reports, both for internal and external (mainly tax) purposes, rather than contributing towards the production of organisation-wide, consolidated accounts. One particular example (see page 313) was enacting (i.e. complying with) rules concerning local reporting timings, but not enacting rules concerning the (tighter) timings to report to the corporate centre – or even the more extreme case, described in

³⁶ The reasons for the perceived reduction of this local focus are developed later in chapter 7.

the previous section, of the sheer lack of reporting to the corporate centre. In those cases, *formal rules did not become locally accepted and enacted rules of membership*.

Whenever local actors did not enact the rules concerning reporting timings to the corporate centre (i.e., did not report in due time), central financial consolidation became more difficult. Those difficulties included tighter timings that central actors had to finalise the consolidation process, but went beyond that. It affected the very quality of the output of the consolidation process. The loss of quality of the consolidated output was typically not in terms of its timeliness, since the report date of the consolidated accounts was met. However, with less available time to work, the central consolidation team had to settle for lower thresholds of data reliability and materiality, a problematic issue given the poor information systems of this area. The quotations in subsection 5.3.3 about the consolidation difficulties are revealing of these issues.

At a *local, production level*, two examples about unwritten, yet locally enacted rules can be provided: rules about production planning; and rules about ignoring prescribed procedures when addressing emergent commercial or production problems.

The first example concerns production planning, and was already briefly described in the description of the production area, in previous section. There were central orientations for plants to adopt similar response times to confirm orders from the commercial units. However, the actual practices often revealed plant-specific rules reflecting plant specificities, or even the simple disregard of the central orientations by local actors. Both practices represented an emphasis on local circumstances, the enactment of (unwritten) local rules, and a disregard for central concerns and rules. Actual practices led to inconsistent timings for order confirmation across plants, and

created obstacles for a global commercial activity, which increasingly relied on multiple-plant sourcing of products. Actors from the commercial area actively promoted attempts to change such practices (and underlying rules) and increase the uniform enactment of company-wide rules. However, such attempts were mostly unsuccessful, and local plant circumstances, agendas and rules continued to prevail in guiding local production actors' everyday practices.³⁷

The second example of unwritten, yet enacted local rules concerns rules privileging production and commercial activities, sometimes at the expense of ignoring prescribed procedures. Previous sections have described IndCo as a company focused on production and sales, while neglecting support activities as accounting and finance. That broad brush depiction of these overriding traits is consistent, and can be enriched, with the more detailed analysis presented in this subsection. An IT interviewee mentioned the traditional rules privileging sales and production above all other concerns:

Respondent: *“You tell me: ‘OK, this is very urgent, so let’s plan and produce it [straight away]...’*

Researcher: *And then we’ll see.*

Respondent: *In the past, that was the philosophy. ‘Hey, I’m not going to stay around waiting for the order. Produce it [immediately]’. ‘Hey, I’m going to ship...’ [dramatised voice, suggesting the objective of ‘getting by/implementing a quick fix, expedite solution, outside defined procedures’]. Fundamentally, it’s always the rule: ‘What I want is to please the customer’. And why? Because he only sees that and doesn’t care a thing about the costs or any management implications, or whatsoever.”*

³⁷ An IT interviewee provided an interesting description of the prevalence of local rules and the (unsuccessful) attempts to address them. For a rich depiction of this tension, see in appendix the extended quotation #1, with minor adaptations.

Similar comments were made by other respondents, suggesting that these rules were indeed deeply embedded, especially in the past. These *rules of membership* consisted of beliefs about appropriate behaviour, in situations where tensions existed between two alternatives. On one hand, enacting the rules derived from the “traditional philosophy”, by adopting an immediate, quick-fix, one-off solution to that particular, idiosyncratic problem, in particular in the production and commercial area (e.g., a pressure to response to an urgent customer request). On the other hand, actors had the alternative of enacting the organisation-wide rules embedded in prescribed procedures, which attempted to orient actors in their daily practices and was therefore an alternative, proposed rule of membership. These organisation-wide, formal rules attempted to promote consistent behaviours throughout the company and bore in mind management needs, namely in financial terms, with a broader organisational scope and allowing for a consolidated view, in particular for central actors at higher hierarchical level. The overall conclusion was that, traditionally, the rules of membership privileging the local, operational and commercial areas tended to prevail.

5.4.3.2 Rules of meaning

As regards rules of meaning, in the *financial area*, actors of different plants and companies could attribute different meanings to the same account of the charts of accounts (indeed, the very existence of similar charts of accounts across plants and companies was, itself, uncommon, as already mentioned). Since actors from different locations enacted different local rules of meaning, the same transaction could be given a different classification, as regards the balance sheet or profit and loss statement accounts to be used. The enactment of distinct rules of meaning led to inconsistent

information and hampered global reliable visibility, control, comparability and decision-making, in particular by central actors.

Similar *diversity* of rules of meaning occurred in the *operational area*. The meaning attributed to products varied across countries and even within the same country. E.g., product references and commercial brands were not uniform in the 1990's. In fact, they were still not uniform even at the time of the fieldwork, but during the 1990's, this type of diversity was indeed significant, as expressed by an IT respondent:

“In a small corner [like Portugal], [a certain number of] plants [producing the same product] with different codes!”

Therefore, the same physical product could be classified differently across locations due to the enactment of different rules of meaning. Conversely, actors from a given plant might not know the meaning of a certain product reference from another plant. Therefore, at a practical level, actors might not enact the appropriate rule of meaning, because they did not know it. At best, they would have to develop additional efforts to gain knowledge about that different rule, “*find the equivalences*” between the meanings (using an expression of the next quotation) and, in a one-off situation, enact that different rule.

The existence of different rules of meaning may not severely affect an individual plant, if taken in isolation. However, as noted by the same respondent, such differences place obstacles at a global level, not only as regards ISs, but also as regards...

“optimisation of stocks and even optimisation of production. (...) It is evident that in situations of high interaction, having different codes

introduces blockages. (...) Redirecting an order to another plant, is not just redirecting the order. It's changing its code. It's a manual operation. It's not an automatic operation. It requires work, and work to find the equivalences. (...) There is no integration at all, we have to go back using papers, faxes..."

While it is true that such optimisations and processual automatisms were less significant at IndCo during the 1990's than in recent years, it is also nonetheless true that the described diversity of rules of meaning would hamper any attempt to introduce those measures which, at an organisational-wide level, would be beneficial. Therefore, the power of the central actors aiming at improving organisation-wide performance would be limited by constraints at the circuit of social integration, given inconsistent rules of meaning across the organisation.

The examples above about prevalent rules of meaning and membership obviously had very different repercussions upon the interests of Mr. A and other central actors, as regards the type, scope and level of impact. However, collectively, they suggest that the circuit of social integration, the rules of meaning and membership accepted and enacted among local actors were not the most favourable towards the attainment of the interests of Mr. A and other central actors.

5.4.3.3 The contrast between the episodic circuit of power and the circuit of social integration

A striking contrast between the episodic circuit of power and the circuit of social integration has been highlighted. On one hand, as regards the episodic circuit of power, Mr. A was typically successful in attaining his objectives at episodic events in which he intervened. On the other hand, the circuit of social integration was quite different. The deeply seated rule that following Mr. A's orders was the appropriate behaviour

obviously benefited Mr. A; however, this rule is not suitable to guide in detail the highly varied actions of everyday organisational life. On the contrary, various prevailing rules of meaning and membership guiding everyday behaviour and decisions throughout IndCo did *not* support the interests of Mr. A and of other actors which shared a concern about the organisation as a whole. Therefore, the power of Mr. A and other central actors was limited by inadequate (from their point of view) rules of meaning and membership which prevailed throughout IndCo.

In addition to the episodic circuit and to the circuit of social integration, it is also necessary to analyse the existing material conditions, the technological conditions constituting the circuit of system integration. Such analysis is done in the next subsection.

5.4.4 CIRCUIT OF SYSTEM INTEGRATION

The previous section provided a general description of some of IndCo's information systems and organisational structures and processes. Drawing upon Clegg's framework, these can be classified as extant *techniques* - of *discipline and production*. During the 1990's, several techniques did not facilitate the attainment of the interests of Mr. A and of other actors focusing on the organisation at a global level, and might even have been detrimental to them. On the contrary, existing techniques satisfactorily supported the needs and objectives of local actors. Additionally, the previous section also identified the lack of certain techniques which, if they were available, would facilitate the attainment of centrally-oriented objectives. This subsection analyses these claims in more detail.

Material conditions, both *technological* and *organisational*, are at stake here. The most relevant type of technology for this thesis is Information Technology (IT), although an example about production technology is also provided. As regards *organisational* features, the analysis focuses on organisational *structures* and *processes*. In turn, both types of material conditions (technological and organisational) had *disciplinary* and *productive* consequences. Both types of material conditions and both types of consequences are now separately analysed.

5.4.4.1 Technological conditions

Numerous extant technological conditions supported local actors better than central actors. A summary of previously described features exemplify. Disparate production equipments did not provide detailed information that could be used to improve efficiency in other plants. Focusing on information technology, the *three types of information systems* analysed (production, financial accounting and management accounting) were not integrated, neither between them at a local level nor between those systems at local level and those at corporate level. Accounting systems also reasonably addressed local needs, in particular to produce local financial statements for legal and tax purposes, but did not facilitate a more aggregated, consolidated view.

Additional examples can be provided, such as particular features of the Spanish accounting systems during the 1990's. The previous section has briefly described some features of the SAP financial accounting module (SAP FI) implemented in 1995. Each plant was allowed to have its own chart of accounts. Controlling areas were defined at a plant level - a very low level which made higher level analyses more difficult, as stressed by Portuguese IT members, and confirmed in the SAP definition of 'controlling

area': "A controlling area is the basic organisational unit in Management Accounting. A Controlling Area represents a closed system for the purposes of cost accounting. Allocations can only be executed within a controlling area, they cannot apply to objects in other controlling areas" (SAP, 2005, p. 26). Additionally, cost centres nomenclature diverged across plants: each plant had its own rules to define cost centres *codes*, i.e., to define the number and position of characters and their meanings, in the codes which identify the cost centres. Whereas such technical features (which actually correspond to rules about ISs matters) may provide flexibility to actors in local sites, a Portuguese IT respondent thus criticised this diversity of choice at such a low hierarchical level:

"When the objective of a group is to have consolidated information at the highest level, if we start segmenting straight away [at a low, plant level], we won't have the necessary information [at a high, consolidated level]."

5.4.4.2 Organisational conditions – processes and structures

Some organisational *processes* were designed with a *local perspective* in mind and were supported by *adequate organisational structures* (i.e., at a *local* level). One example (already presented on page 345 and developed in the appendix as quotation #1) concerns defining the *frequency* of the process of planning production orders on the basis of plant characteristics, rather than on the basis of global commercial activities. Local units were adequately staffed to carry out several local finance, accounting, IS and commercial activities. Human resources management of local employees was also in part attributed to local management, structurally attributing to local management – and to the plant director in particular – substantial autonomy in distributing rewards and sanctions.

A number of illustrative empirical insights have already been indicated, in particular as regards the accounting area. But additional insights were gathered. The Spanish subsidiary was an interesting example. The overarching scenario emerging from the fieldwork was that organisational structures and processes in Spain in the late 1990's were highly decentralised and particularly suited to local preferences and interests. In addition, Portuguese central actors had limited knowledge about the actual degree of (de)centralisation in Spain. The following quotes from two Portuguese respondents illustrate this, although with slightly different perceptions on the topic, most likely due to their different organisational positions. An IT manager, who had at the time a relatively junior position, recalled:

“There were indications [from Portugal] to centralise in Spain, as well. (...) And some people had that mission; but then, in practice, they only did something to convey the idea that it [centralisation] had been done. (...) Concrete examples: people said that accounting in Spain was totally centralised in Madrid – lies! The transactional activities were all performed locally. Each plant performed its own [accounting]. Each plant executed its own payments. [This decentralisation] is visible if you are on the field. (...) The holding's interlocutor said ‘Yes, [it is centralised]’, so you [the holding] believed. Only when you go out to the field and start ‘digging’, you conclude that it is not true. I.e., they had a corporate centre, a number of people in whom those tasks were centralised. However, they kept everything decentralised – payments, accounting, everything was decentralised.”

A CC manager provided a similar account - and in spite of his more senior position, he also recognised having at the time a limited knowledge about the Spanish subsidiary:

“For me, it was clear that [accounting activities] were very decentralised. (...) Obviously, before you get into the details, you cannot say exactly what. But I recall, for instance, that at the time [1998] questionnaires were sent precisely to identify that: (...) what was being done in the corporate (or more central) team and in each of the units. As I managed, in spite of everything, to have some visibility, I did not have many doubts

that there was a high degree of decentralisation. But, [knowing] exactly the degree of decentralisation, it's clear that it was only known [later]... It wasn't even [known] with those questionnaires; that was [merely] an indication, which later was exhaustively [explored], when we developed much more complex processes, such as the treasury centralisation, with [Bank X]."

Two concrete examples in the accounting area can be added, regarding Spain in the late 1990's. Both involve technical and organisational configurations, and the first example is indeed quite related with the one provided above (about the definition of cost centres' nomenclature and controlling areas in Spain). In Spain, strict access policies reflected the prevalent local focus and autonomy. For example, users from a given plant could not enter data regarding another plant. If a document (e.g., an invoice) contained data related with two plants, the accountant of the first plant would only post the data related to his plant and would place the remaining data in a 'suspend account'. The process would then be taken by the accountant of the second plant, which would retrieve the data from that suspend account and conclude the posting.

A similar limitation was that users might not be authorised to enter data in certain types of accounts. In such cases, one accountant would only post in the accounts which he had access to, and would use a suspend account in place of the accounts he could not access; a second accountant would then take on the process, retrieve the data from the suspend account, and complete the posting. In both situations, two partial operations had to be made and two employees would have to intervene to complete the postings.

The extent to which each of these arrangements benefited the local actors was not totally clear to the researcher, although both respondents above conceded that these arrangements indeed granted local actors a great deal of (appreciated) flexibility. In any

case – and that was the most crucial aspect for this research-, it was clear that these arrangements did *not* favour the interests of central actors and of those interested in the organisation as a whole, not only due to the information restraints they implied, but also due to the higher costs globally incurred.

5.4.4.3 Disciplinary consequences

As regards the *disciplinary* consequences of these techniques (i.e., of the technological and organisational material conditions), the limitations of the centre to access, interpret, validate, control, compare and decide upon locally-produced information were clear.

Indeed, visibility over the locals was highly limited in scope and depth, it was episodic and depended on information produced at a local level, whose validation was, at best, difficult. In particular, (at least some) central actors perceived the risk of lack of reliability (and hence relevance and comparability), due to intentional or non-intentional data errors at local level. The limited visibility capacity precluded a central ‘gaze’ in the line suggested by Foucault (1975/1977) (section 3.3) and reduced the capacity of central actors to effectively intervene and discipline local actors.

5.4.4.4 ‘Productive’ consequences – the ‘mainstream’ and the ‘Foucauldian’ perspectives

As regards the ‘productive’ consequences of these techniques, there is the need to separate the two senses of this concept, as discussed in subsection 3.3.6: the ‘mainstream’ perspective; and the ‘Foucauldian’ perspective.

From a ‘*mainstream*’ perspective, existing *techniques had limitations* in terms of ‘producing’ artefacts which contributed towards the attainment of central actors’ interests – such as consolidated financial reports. Moreover, there was a *sheer absence* of techniques which might facilitate that attainment– such as information systems allowing central access to local data and drill-down functionalities to analyse, validate and control data at a more detailed level. On the contrary, *existing techniques* tended to *satisfy local actors’ needs*. They allowed them to produce the required legal and tax reports and to control important variables, like stocks, at a local level. As an SSC member recalled,

“Before, many subsidiaries worked with Excel a lot. In [two particular countries], they controlled stocks, exclusively using Excel. (...) What was important for them, what they took as correct, was what they had in Excel files.”

Interestingly, a company-wide IS which could allow a tight stock control had already been implemented in certain countries, but local people did not use it and kept using the locally developed technologies (based on Excel) which provided them the locally required information. The same respondent continued:

Respondent: *“The [common] tools they had to control stocks, it was more for global purposes, or just to suggest compliance. (...) In [a particular country], they worked with Excel, so they left [the common tool] aside until they had time, or when they felt like it. (...)”*

Researcher: *So, it was not really a problem with the tools themselves. It was rather a problem about using the tools.*

Respondent: *Yes”.*

At a more general level, a CC member thus described the visibility limitations of central actors in the 1990’s:

“At that time, it was much more complicated for the Corporate Centre to have the same level of satisfaction regarding information and analysis, when compared to local people. Due to that difficulty, due to that information structure, the CC always had a thicker fog to look into the future or the reality itself, than the locals. That passage of knowledge, or information, was not as fluid as desired.”

From the *alternative, Foucauldian* sense of ‘productive’ consequences of the technique, the limited existing disciplinary techniques accessible to central actors did not significantly manage to ‘produce a dominated (i.e., subjected) local actor’. As discussed above, the limitations (or absence) of techniques which might provide insights over local actors limited the disciplinary ‘gaze’ from central actors.

5.4.5 CIRCUITS OF POWER AND PRACTICES ACROSS INDCo: A CONCLUDING OVERVIEW

At a late stage of the fieldwork, the researcher presented his evolving interpretations to a CC member. The ensuing transcript of the dialogue covers the main insights analysed in this section:

“Researcher: *From what we analysed, in 1998, at a pre-SAP stage, the acquisitions history led to a situation of high autonomy and differences in practices...*

Respondent: *[adding] ... and systems...*

Researcher: *and systems. On the whole, in terms of capacity to intervene and visibility, the local interests, the local objectives ended up by being better met than those of the centre.*

Respondent: *Of course. That is evident.*

Researcher: *We’ve talked about systems and practices. And even in terms of the values of the people, there was also... [interrupted]*

Respondent: *When you make an acquisition and everything stays the same, keeping the previous systems, nothing changes. As much as you claim that you have a [single] culture... that's irrelevant. What matters is how the people worked, and whether they continue to work in the same way, with the same logics and principles. If they continue, nothing changes.*

Researcher: *What kind of logics and principles could you provide as examples and which were typical of the group's lack of capacity to intervene at the time? (...)*

Respondent: *That is precisely what we were talking about. I.e., when there is a decentralisation logic in terms of decision and implementation processes... [interrupted by phone call] (...)*

Researcher: *So, effectively, those who could be identified as the powerful ended up by being the locals, rather than the centre – which actually had the formal authority inherent to being the parent company, but in terms of capacity to get results...*

Respondent: *There were actually 'two IndCos': there was Portugal; and there was 'the rest'. Spain had a decentralised plan, no doubt, in a reasonably consistent way; there were people there with great decision power, who implemented the policies – in the way they understood that were agreed at a corporate level with Mr. A and the Board, in which they also participated. But, as regards 'the rest'... [there was total autonomy]. It's also true that in 'the rest' there was not much more. By acquiring [the Spanish company, in the early 1990's], we included a company in [another country], which at the time was a very small plant, which was in total and absolute autonomy, for many years. And there was a plant in [another country]. Only [in the second half of the decade, two additional countries] appeared.*

This interviewee agreed with the researcher's interpretation that the centre experienced limitations. And although the interviewee downplayed 'single culture' as a potentially inconsequential rhetorical concept, he highlighted how the prevailing, *organisation-wide logic and principle of decentralisation* (i.e., an organisation-wide element of the circuit of social integration) impacted, and was embedded, on processes and practices.

This chapter has highlighted that in the late 1990's there was a problematic situation as regards the *disembedding* processes which “lift[ed] up (...) local social relations to a global level” (Moilanen, 2008, p. 253), in particular as regards a financial perspective. Existing systems, processes and actual practices were perceived to be limited in producing the abstract, financially-expressed knowledge about local operations, in a way to address the needs of central actors. There was low reliability of, and trust on, extant “expert systems”, as “systems of technical accomplishment or professional expertise” (Giddens, 1990, p. 27, cited in Moilanen, 2008, p. 253). This low ‘trust-in-systems’ compromised the disembedding process. In turn, limitations in the disembedding process limited central actors’ ability to “act back upon local contexts through *reembedding*” (p. 254, emphasis added) (see also Seal and Herbert, 2009). At the same time, ‘trust-in-persons’ was also limited by local actors’ rules of meaning and membership, which privileged local level issues. Processes of disembedding and reembedding and the role of trust-in-persons and trust-in-systems are further developed in the next chapter, in subsection 6.2.1.

Summing up the current section, the majority shareholder and chairman, Mr. A., had a virtually absolute power during the *concrete episodes* of social interaction in which he became involved. He had also succeeded in firmly instilling the rule, at the *circuit of social integration*, that his orders were to be followed by other organisational actors. However, these achievements of Mr. A did not prevent some limitations experienced by himself and other actors with an interest on the company as a whole, from a central perspective, such as top managers and actors at the corporate centre.

These limitations included the obvious insufficiency of the mentioned rule of ‘following Mr. A’s orders’ to guide the myriad of decisions and actions taken by actors

across the company, during their everyday organisational life. In addition, other rules of meaning and membership were identified which did not promote, and sometimes even hampered, the achievement of the interests of central actors. There were prevalent rules, in various functional areas, about adopting a local level (the plant or country level) focus as the criterion to shape everyday decisions and actions, rather than a global level. These rules were enacted by local actors, and no evidence was found of central actors developing a significant, vigorous and straightforward contestation to those rules. Therefore, the local focus of such rules appeared to have become an ‘obligatory passage point’ guiding actors’ actions (Callon, 1986; Clegg, 1989; see section 3.4). In addition, the existence of diverse rules of meaning also compromised the interests of central actors.

Finally, a number of limitations existed in the circuit of system integration which also compromised the interests of central actors, although satisfying local actors. Information systems of various functional areas, and organisational structures and processes, which also became ‘obligatory passage points’ in actor’s activities, were more adequate to provide for the needs of the local actors, rather than the needs of central actors.

Globally, prevailing circuits of social and system integration prevented central actors from having a clearer visibility over the company as a whole and detailed insights from the various subsidiaries and plants. These restrictions hampered global decision-making and control and prevented having a more frequent executive intervention. In short, prevailing circuits of social and systems integration structurally limited central actors’ power, in a clear contrast with the episodic circuit.

Considering the analysis so far, it becomes apparent that the three circuits of power are highly interrelated. The next section explores such interrelationships.

5.5 THE INTERRELATED NATURE OF THE THREE CIRCUITS OF POWER

This section draws on the previous characterisation of IndCo in the late 1990's and argues that the three circuits of power in IndCo were strongly related and must be understood in their related totality, rather than in isolation. To do that, it first explores a particular empirical example introduced in subsection 5.3.3, on page 320, about the information systems supporting stock valuation and variance analysis. Then, it adopts a broader, organisation-wide level, representing the overall relationships between the main circuits of power identified in IndCo during the 1990's. A final subsection summarises the previous characterisation of the circuits of power.

5.5.1 INTERRELATED CIRCUITS OF POWER: AN INTERPRETATION OF A PARTICULAR EMPIRICAL EXAMPLE

The application of Clegg's framework to explain the adoption at IndCo of particular solutions as 'obligatory passage points' for stock valuation and variance analysis allows for a better understanding of the theoretical model and the way the circuits are interrelated. It should be noted that the choice of this particular aspect (the adoption of particular solutions) does not mean that it was particularly significant, neither empirically nor theoretically. Rather, this aspect was chosen mostly as an illustration, in order to highlight how Clegg's model can be applied to a very specific empirical issue.

The following figure 5.2 depicts such tentative application of the framework – in spite of some problems as regards the depiction in Clegg’s graphical framework of certain relations, which are addressed later in the proposals for the development of Clegg’s model, in section 8.1. The framework component of ‘Exogenous environmental contingencies’ is not included, due to its lack of applicability to the interpretation of this particular example.

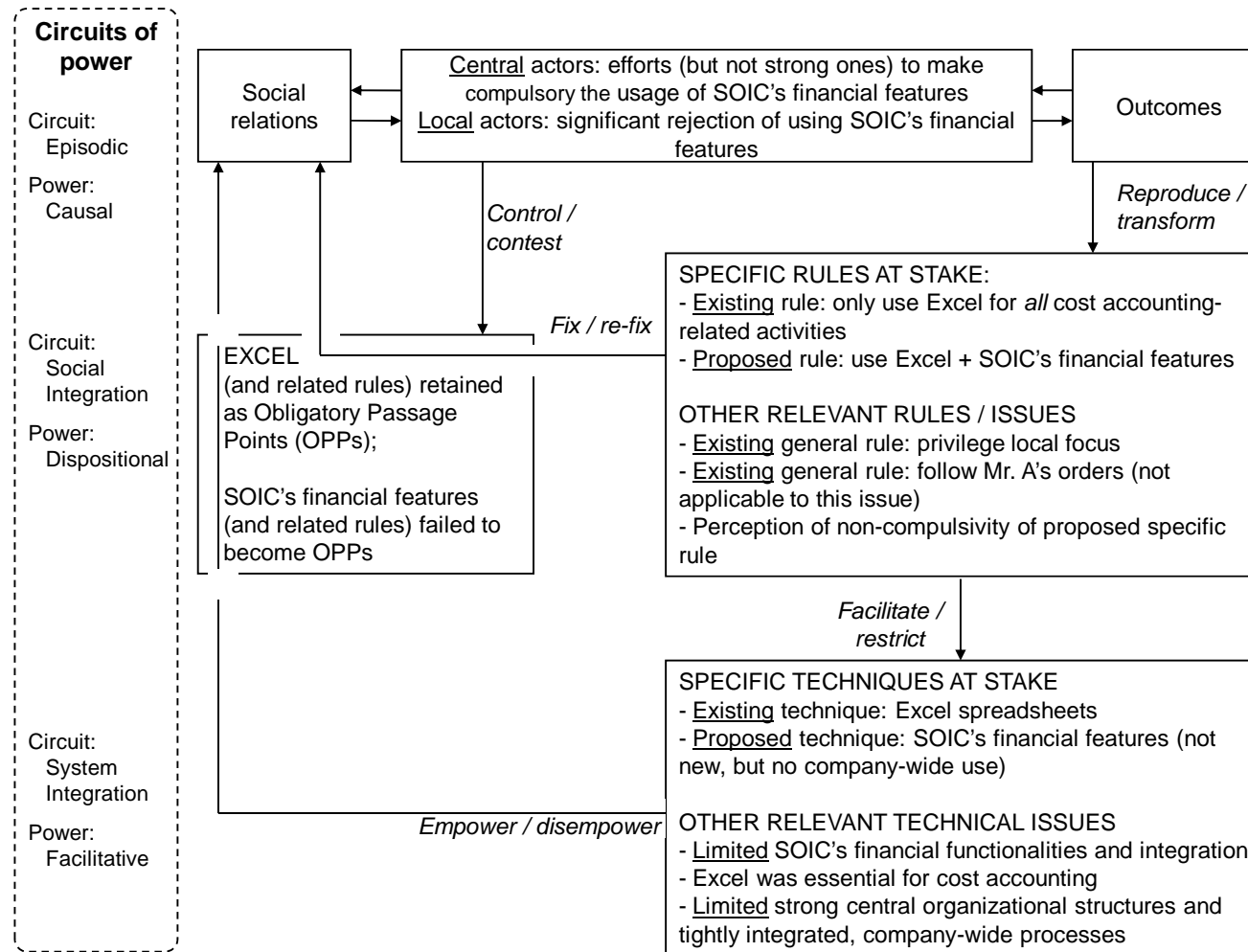


Figure 5.2: IndCo's circuits of power as regards the 'Obligatory Passage Point' status of Excel vs. SOIC's financial features during the 1990's
(Source: based on Clegg's, 1989 framework, with some adaptations)

Analysing the relationships between the circuits of *system* and *social* integration, it can be argued that *technological features* and *prevailing rules of membership* were mutually reinforcing in promoting Excel spreadsheets as the ‘*obligatory passage point*’ for *stock valuation and variance analysis* at a local level. The existing Excel spreadsheets were locally perceived as technically adequate to carry out these activities at a local level. On the contrary, the common tool SOIC, whose adoption for these activities was being proposed by some central actors, was not an accounting solution, but an operational one, and suffered from some limitations. The following quotation from an IT respondent clarifies the issue:

“SOIC was a logistic solution, purchasing, sales and stock management. And there was the possibility to draw on those operations [transactions.....] and integrate them with accounting, to avoid manual operations which would have to be done at the end of the month. (...) You had to perform calculations outside SOIC, in the Excel spreadsheets of each plant controller, who would gather information from SOIC [and other sources]. Then the accounting area would reach a certain figure. Those figures (...) would be transferred to a table [and back to SOIC], and SOIC would then attribute an accounting value to all the transactions of the period. (...)”

From SOIC, you could get information, not only for financial accounting, but also for managerial purposes. Some companies had previously calculated costs³⁸ (...) and introduced them to value the opening balance of the products. Until those costs were reviewed, all the transactions were valued based on them. And then you could analyse the variances, comparing SOIC values with the actual costs, calculated by accounting.

Researcher: *Actual global [i.e., not detailed] cost.*

Respondent: *Exactly [global costs]. But you could always calculate some variances. It also depended on the magnitude of the variances. If it was large, you had to look for the causes of those variances.*

³⁸ Other respondents clarified that these previously calculated values were an average of the previous three months.

But there were entities with many people who thought that doing that work was not worth it. (...) [So,] not all companies were taking advantage of that possibility, because they preferred to do it through other tools, like Excel, where they had calculated the stock valuation”

Therefore, even if a given plant used the financial features based on SOIC, the plant would still continue to have to use Excel anyway, for both cost calculation and for more detailed variance analysis. Indeed, Excel was useful for cost calculation in two ways: to aggregate the information from SOIC and non-SOIC sources; and to allow more detailed cost calculations for individual products. A local actor thus highlighted the limitations of SOIC and the need to resort to Excel for detailed analysis:

“Within SOIC, there was a module to value stocks in a generic way, aggregating the products into groups – just a few, it didn’t go to the detail of individual references. A [type of product] can be very cheap or very expensive, depending on the design or [a particular raw material]. (...) If I wanted to know precisely the cost of a particular product or reference, I would manually calculate it (...) using Excel (...) because I would not use such a generic cost [as the one in SOIC]”

In addition, the benefits for central actors from having financial information in SOIC were also limited, due to SOIC’s technical characteristics. As the last IT respondent described,

“[An automated aggregation of financial information from SOIC] could never be done, because SOIC was not a multi-company solution. There was a [separate] database in each company. (...) [Even] when [four distinct juridical entities] merged into one, their databases were not merged; they were kept separate, autonomous, as if they continued distinct juridical entities. This made aggregating information [in SOIC] impossible or very difficult.”

As a summary, some local actors considered that their local needs were adequately met by Excel spreadsheets alone; and although some central actors argued in

favour of the organisation-wide adoption of the financial features based on SOIC, the benefits for the same central actors were also limited by technological features.

Therefore, the option for local actors was whether: 1) enacting the traditional, general rule of membership of privileging a local focus and concerns, and the specific rule to only use Excel spreadsheets for stock valuation and variance analysis; or 2) enacting the new rule proposed by the central actors, and start using the financial features based on SOIC. And in spite of the attempts of some central actors to introduce the new rule, some local actors continued to enact the traditional rule and only use Excel.

As a conclusion, this particular example regarding the (non) usage of SOIC's financial features, as well as various examples presented in this section, suggests the overarching insights that there was a bidirectional (although obviously non-deterministic) causality between the circuits of social and system integration. On one hand, the prevailing circuit of social integration did not support the adoption of a technique (the financial features of SOIC) which did not meet the requirement of the 'local interest/focus' rule, since the local needs could be satisfied by Excel alone. On the other hand, technical issues also promoted the local rule. The SOIC solution was limited for financial purposes, including for a higher level analysis (given its lack of detailed functionalities and fragmented, non-integrated nature), and Excel spreadsheets would have to be locally used for other related purposes anyway. Additionally, there was, at the time, a lack of strong central organisational structures and a lack of tightly integrated, company-wide processes – hence creating a lesser pressure towards the enactment, by local actors, of the rule to use SOIC's financial features.

Therefore, an overarching insight from various examples presented in this section was that there were *bidirectional (yet non-deterministic) repercussions between the circuits of social and system integration* – although Clegg’s framework only graphically depicts the influence from the circuit of social integration to the circuit of system integration (this limitation is addressed in a proposed contribution to Clegg’s framework, in subsection 8.1.3)

In addition, central actors did not firmly develop explicit and strong exercises of *episodic* power to attempt to enforce uniform practices and usage of systems. Commenting on a stock-related functionality of this global tool, an IT respondent stated that (as already quoted in page 320)...

“Some people [from the centre] said that that should happen. But then, in practice, it didn’t happen, because they couldn’t pass that message almost as a law, obligatory. And so [controllers in plants] kept thinking ‘OK, as long as this is not... [compulsory, we won’t do]’”.

In the social relations established between central and local actors as regards the adoption of SOIC’s financial features, it appeared that the exercise of formal power by the central actors promoting this tool was not significant³⁹. However, insufficient control and/or mobilisation of resources may not have been the only reason for the lack of success at the level of *episodic circuit of power*. The objectives addressed in these particular episodes faced obstacles at the level of the circuit of *social integration* – as mentioned above, they were inconsistent with the ‘local interest/focus’ rule. The

³⁹ Although this aspect was not fully clarified by the researcher, it appeared that the central actors at stake were not in a high hierarchical position and hence did not have a great formal power. In addition, it appeared there was no involvement of higher level actors backing up their attempts. The researcher believes (although, again, this was not fully clarified) that such lack of higher level support was due to the fact that, given the multiple other limitations, implementing this particular feature would not make a substantial difference within the overall picture. Since gains from changing this particular feature would likely be limited, it discouraged a stronger pressure by key central actors in the social relations with the locals, at the level of the episodic circuit of power.

combined effect from these two circuits led to the rejection of the attempted innovation at the circuit of *system integration*, at the practical level of actual and accurate usage. The material conditions (the financial features of the common system), whose adoption was being proposed by central actors, did not succeed in becoming fixed as an ‘obligatory passage point’. On the other hand, the previous Excel-based technologies, whose usage as the single tool with stock valuation allowing for some managerial analysis was being (half-heartedly) contested by central actors, nonetheless prevailed as an ‘obligatory passage point’.

As a consequence, no major shifts occurred in terms of the relative *empowerment* of the actors at stake. Local actors continued to be ‘empowered’ by existing Excel-based techniques⁴⁰. On the other hand, factors from all three circuits of power promoted that local actors did not use appropriately, or not at all, several technical features of SOIC. Therefore, central actors struggled with a mix of structurally limited tools, which crucially depended on (failing) local actors’ input. Therefore, the empowerment of the central actors was limited, vis-à-vis local actors, in the social relations they established.

5.5.2 INTERRELATED CIRCUITS OF POWER: AN INTERPRETATION AT AN ORGANISATION-WIDE LEVEL

This section has also explored empirical insights suggesting a broader picture. The following figure 5.3 synthesises the main and contrasting features of the prevalent circuits of power in IndCo’s, during the 1990’s and up to last years of the decade, as highlighted in this chapter.

⁴⁰ Clegg’s framework links empowerment to social relations, rather than to actors. A change in this linkage is proposed in section 8.1.5.

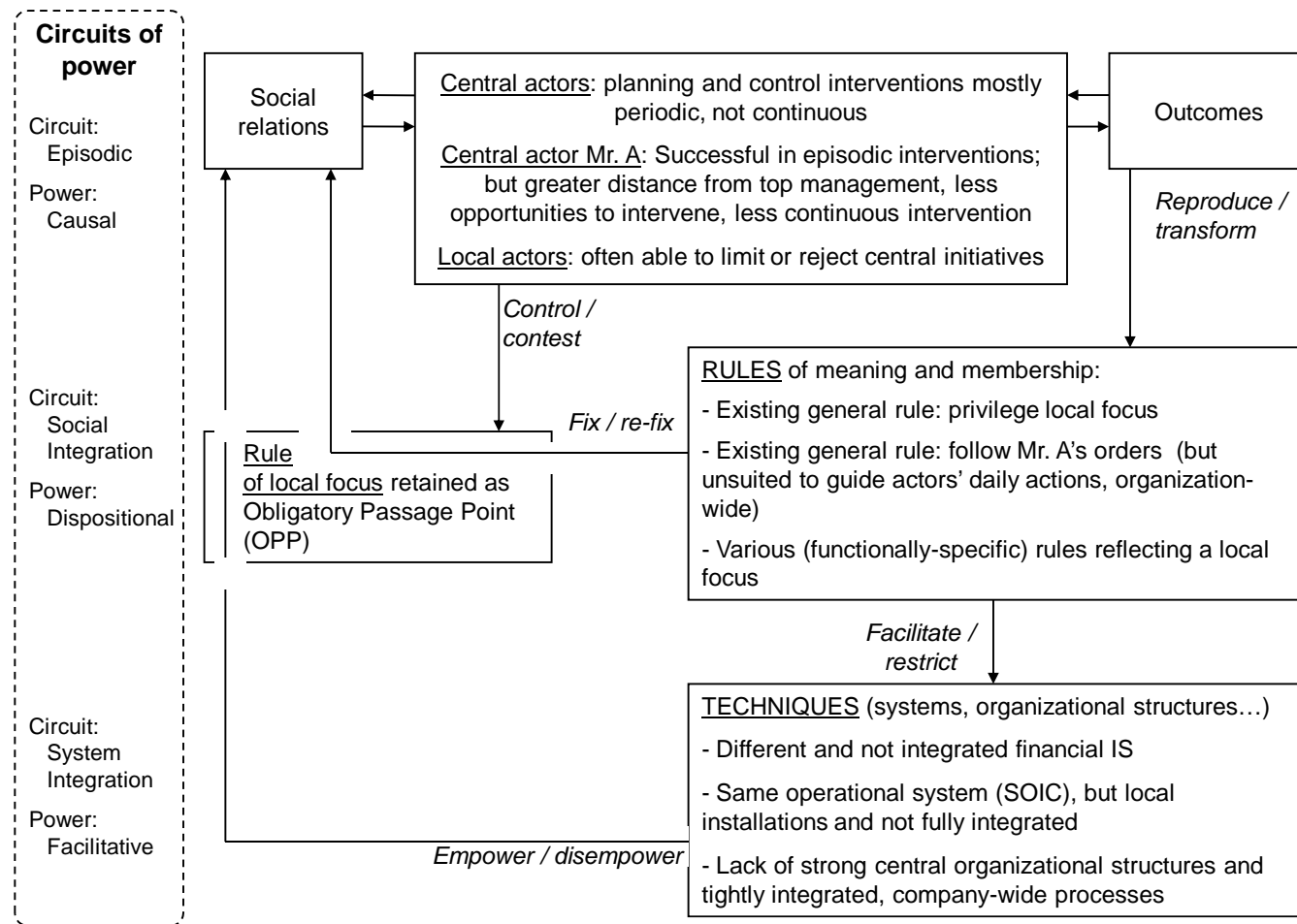


Figure 5.3: IndCo's circuits of power during the 1990's (Source: based on Clegg's, 1989 framework, with some adaptations)

From a theoretical point of view, the most interesting outcome is that Mr. A, although virtually always victorious in concrete episodes of social interactions, was nonetheless (along other central actors) confronted with structural limitations, in various areas of the organisation. In the terms of Clegg's framework, Mr. A had limitations derived from the structural circuits of social and systems integration.

These power limitations of central actors derived from the circuits of social integration (rules of meaning and membership) and system integration (material conditions). In spite of the well-accepted rule that Mr. A's orders were to be followed, everyday behaviours of actors throughout the organisation cannot be directed solely neither through permanent episodes of power exercise, nor through the rule of 'following Mr. A's orders'. Mr. A's orders and general objectives are obviously unable to address and guide the multitude of actors in their multitude of everyday actions and decisions.

On the contrary, this section highlighted examples of rules and techniques which promoted the attainment of the objectives of local actors but did not promote, and sometimes even hampered, the attainment of the objectives of central actors.

As such, and as a synthesis, the traditional (i.e., not recently introduced), general (i.e., not functionally-specific) local rule of privileging a local focus and local concerns may be considered as the most crucial obligatory passage point. In fact, its recurrent enactment had strong implications in the power relationally attributed to the various actors (and, in a particularly noticeable and negative way, the central actors) within IndCo's actor-network.

5.6 CONCLUSION AND NEXT STEPS

This chapter initiated the analysis of the empirical setting, by providing a brief characterisation of the case study organisation and its industry, the group in which it is included, and its chairman and majority shareholder, Mr. A. The remainder of the chapter analysed the organisation until the late 1990's, depicting the "original state of affairs" (Czarniawska, 1998, p. 2), as the first building block of the case study narrative. The second section argued that the case organisation, by that time, could be described as a decentralised and diversified organisation, with autonomous subsidiaries and local sites. The third section characterised the IT, production and accounting and finance areas. It then preliminarily characterised the power (and limitations) of some actors, and it introduced the paradox of some formally powerful actors being confronted with a number of important limitations.

Clegg's framework, adopted from the fourth section onwards, illuminated how, in the 1990's, the power of different actors differed across the three circuits of power: the circuit of episodic power; the circuit of social integration; and the circuit of system integration. Clegg's framework was an effective tool to *dissolve the apparent paradox* of formally powerful actors being confronted with limitations to achieve their interests, because it guided the interpretation of the empirical setting to identify the causes of the power limitations of central actors. Therefore, Clegg's framework was useful to answer the questions 'Who are the powerful?' and 'What causes (or limits) their power?' (Clegg, 1989; Seal, 2003).

The limited attainment of interests of central actors did not emerge from the episodic circuit of power, i.e., from issues related with an episodic control and

deployment of resources. In fact, on one hand, Mr. A had an overwhelming power based on the control and deployment of resources, which he might draw upon in concrete episodes of social interaction in which he became involved. To a certain extent, a similar assessment can be made when top management and the corporate centre engages in particular episodes with actors from lower organisational levels – although at a clearly lesser extent, as demonstrated by difficulties in implementing some change projects.

The limitations of central actors emerged mostly from characteristics of the circuits of social and system integration, where those central actors experienced power limitations at a more structural, permanent and continuous level. In the circuit of social integration, and as regards rules of membership, the widely accepted and enacted rule of following Mr. A's orders was limited in guiding actors' everyday actions; on the contrary, the general rule of privileging the local level and the diversity in rules of meaning played against central actors' interests, and in a more direct, effective and wider way. In the circuit of system integration, several ISs and organisational structures and processes were arguably more adequate to address the needs of the local actors, rather than central actors'. Together, these structural limitations in these two circuits reduced central actors' visibility, control and capacity to influence actions of actors throughout the company.

Finally, based on the previous analysis, the fifth section argued that the circuits of power are highly interrelated. It first illustrated this argument with the particular empirical situation of the (lack of) enactment by some local actors of a particular technique that central actors had proposed. Then, it expanded the analysis to an organisation-wide level.

Next, chapter 6 describes several innovations introduced in the circuit of system integration from the late 1990's onwards, identifies the driving motivations and actors behind them and proposes some expected shifts in the circuits of power. Later, chapter 7 explores the actual shifts in the various circuits of power and the multiple interrelations between (and within) those circuits.

POWER AND ORGANISATIONAL CHANGE: A CASE STUDY

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CHAPTER 6 – THE CASE STUDY: A FOCUS ON THE END OF THE 1990’S AND LATER

6.0 INTRODUCTION AND OVERVIEW

This chapter analyses three innovations – one technological innovation and two organisational innovations - introduced in IndCo between 1998 and 2001 which affected the distribution of power in the organisation actor-network. Drawing on Clegg’s (1989) framework, these technological and organisational innovations were introduced in the circuit of system integration and succeeded in structurally becoming Obligatory Passage Points, affecting the distribution of power flowing through this circuit of power.

This chapter constitutes the second element of the case study narrative. After the previous chapter analysed the “original state of affairs” (characterising IndCo until the late 1990’s), this chapter now focuses on the “action or (...) event” (Czarniawska, 1998, p. 2), i.e., the introduction of the innovations in IndCo, between 1998 and 2002. The next chapter analyses “the consequent state of affairs”, i.e., the actual repercussions of the innovations.

This chapter intends primarily to address the *second research question* related with the empirical setting: to explain *why and how central actors introduced and mobilised technological and organisational innovations*. Therefore, this chapter focuses primarily on two areas: *motivations and expectations* of repercussions of these innovations; and *processes* through which they were introduced, developed and became fixed in IndCo’s actor-network. Nonetheless, it is at times inevitable to anticipate some *actual* repercussions, particularly when analysing the various stages of these processes.

As such, this chapter briefly mentions some *actual* repercussions, although these are mainly analysed in the next chapter.

Each of the first three sections focuses on a particular innovation, as related components of a single case study¹. The first section focuses on a *technological* innovation: the introduction of the financial accounting module of an ERP package (*SAP FI*). The two following sections analyse *organisational* innovations. The second section focuses on the relocation of the *Corporate Centre* (CC) from Spain back to Portugal. The third section analyses the creation of a *Shared Services Centre* (SSC), also in Portugal. A brief final section summarises the chapter.

6.1 A TECHNOLOGICAL INNOVATION: SAP FOR FINANCIAL ACCOUNTING

This section *analyses the design and implementation process of SAP FI (i.e., its mobilisation process) in IndCo²*. It starts by providing a chronological account of the gradual adoption of various SAP modules, in a long process which started by the financial accounting module (*SAP FI*). The second subsection makes a brief introduction to the *SAP FI* project. The two following subsections examine, respectively, *how certain design options promoted uniformity and central visibility in SAP FI*; and, on the opposite direction, *how other design options accommodated diversity and autonomy, reducing central visibility*. The fifth subsection analyses how *SAP FI* was *redesigned* to support the objectives of central actors. A sixth subsection

¹ See subsection 4.1.3, page 189, footnote 10 for a discussion about this research design clarification.

² The *SAP FI* project was analysed as a separate working paper (Oliveira, 2007c), when the research was strongly focused on ERP repercussions (see subsection 4.1.3) and the PhD was planned to be constituted by three papers. However, when the research topic changed and included additional innovations (subsection 4.1.4), an in-depth examination of very specific SAP-related topics (e.g., the selection of the software vendor) became less relevant and even inappropriate. Therefore, a more detailed analysis of the *SAP FI* project was left for future work.

re-examines the motivations concerning SAP FI design options, with a particular focus on the accounting and finance function. The seventh subsection argues that SAP FI became an obligatory passage point, influencing enacted rules and thus affecting actors' power within IndCo's actor-network. The final subsection provides a summary and highlights the crucial need to also consider additional innovation processes – to be analysed in the ensuing sections.

6.1.1 A CHRONOLOGICAL ACCOUNT OF THE IMPLEMENTATION OF SAP MODULES IN INDCo

In 1997, IndCo decided to implement the financial accounting module of SAP (SAP FI) in the Portuguese subsidiary. In the following year, the scope of this project was expanded to include two new plants in two other countries. Within the SAP FI project, parts of other accounting modules were also implemented: SAP CO (Controlling) and SAP FA (Fixed Assets); however, they were implemented in order to support SAP FI, rather than as main objectives themselves. Implementation in the three countries occurred during 1999. By the end of 1999, it was decided to roll-out a *global* SAP FI model to the remaining countries (except one); implementation was finished by 2001.³

In 2000, the Sales and Distribution module (SAP SD) started being implemented. At a first stage, only commercial functionalities were implemented (e.g., clients' orders, invoicing, etc.). This process included all countries (except the one also excluded from the SAP FI project) and, in general terms, it was finished around 2003.

³ The implementation of SAP modules never actually finished, given the on-going creation of new plants and the acquisition of new companies. The indicated ending dates merely represent the end of the most substantial part of each SAP project.

Some features of the module on Materials Management (SAP MM) were also included during the implementation of Sales and Distribution module. However, a more complete implementation of the SAP MM module only started in 2001, along the Production Planning module (SAP PP), in a pilot plant. This project integrated the operational area in the same countries where SAP was already present, in a long process which, in general terms, only finished in 2007.

By 2005, it was decided to adopt the costing module SAP CO-PC (Product Costing). Given the close links between the production module and the product costing module, it was decided that SAP CO-PC should be included in the still on-going SAP PP roll-out. Therefore, this module was implemented in the locations where SAP PP was already present, as a separate roll-out; and it was implemented in the remaining locations, along with SAP PP, finishing in 2007.

The case study focuses on the design, implementation and repercussions of the *SAP FI* module. However, the longitudinal and long-term perspective adopted in this research implied that often the other SAP modules (SAP SD, MM, PP and CO-PC), as well as non-SAP solutions, were also found to be relevant actors in the ongoing organisational change. Therefore, occasionally, these other solutions are also mentioned during the case study analysis, although they are not at the core of the thesis. By 2006, it was decided to adopt the Human Resources module SAP HR. This project was totally excluded from the research scope. The remainder of the section now analyses the SAP FI project.

6.1.2 MOTIVATIONS, OVERVIEW AND MOBILISATION OF THE SAP FI PROJECT: AN INTRODUCTION

In a preliminary way, it may be argued that the motivations to adopt the SAP FI module were mainly IT-related. In 1997, IndCo identified a potential “Year 2000” (Y2K) bug issue in the financial accounting solutions of some sites. Driven, above all, by the desire to avoid that risk, IndCo decided to replace the existing solutions, as many other organisations at the time did (Fahy, 2001). IndCo, as many other large organisations, opted for the SAP software and its financial accounting module, SAP FI, to be implemented in all Portuguese entities.

Soon afterwards, in 1998, it was decided that the same model would also be used in two new plants, planned to start operating in two other countries in the following year. So, in early 1999, a project team was set up to design and implement SAP FI for those three countries. This project team included IndCo’s accounting and finance employees from Portugal, IT employees from Spain and consultants from the consultancy firm which cooperated in this research. By the end of 1999, a decision was taken to develop and roll-out a global SAP FI model to the remaining countries, in a process which finished in 2001 (one country was excluded, as discussed in the next subsection, particularly in footnote 10, in page 386). Later projects referred mostly to roll-outs to newly acquired companies

By 2001, the most important developments of SAP FI had already occurred⁴. SAP FI became the financial accounting solution of nearly all subsidiaries, although

⁴ The configuration of a system at any moment in time should only be considered as a *temporary* outcome, as discussed below. However, by the end of 2001, the fundamental and structural options concerning SAP FI had already been made, enduring at least until the time the fieldwork was conducted.

with a configuration which still potentiated some diversity, as discussed below in this section. Later that year, SAP FI was reconfigured to adopt a common chart of accounts, linked to country-specific charts of accounts and supported by a common database located in Portugal. This project, although in the financial accounting area, also involved management accounting and control, and intended to set the formal rules to be enacted by local actors, as a CC manager explained:

“At the time, IFRS [International Financial Reporting Standards] were still not adopted, but rather ‘IndCo’s chart of accounts’, setting the rules to be applied also for management control, establishing what should be recorded in each account, regardless of existing many other accounts [in country-level charts of accounts] for whatever needed purposes. But, as concerns sub-totals, everything – whatever could be expected, at least – would sum up to those accounts, allowing for comparisons [across the countries].”

In an extremely summarised way (to be developed in this section), it can be said that by 2001 such integrated solution increased comparability, facilitated consolidation activities and provided greater visibility over the organisation as a whole, and over individual countries and sites in particular. Among other possible beneficiaries, this new technical condition benefited, in particular, the central actors who had an interest in the organisation as a whole, and who started having a tool providing faster and more reliable and comparable information.

However, this (always temporary) ‘outcome’, in terms of the particular adopted configuration of SAP FI, was not ‘technically deterministic’. Software vendors (e.g., SAP 2003, 2007), the professional literature (e.g., Scapens *et al.*, 1998) and the academic literature (e.g., Quattrone and Hopper, 2005) converge in stressing that the generic SAP package offers a *plethora of alternatives, in particular during the design stage of a first time implementation*. There is also consensus that implementation in

each particular organisation requires choosing among those alternatives, through system configuration and / or customisation – i.e., the actors involved not only *may wish to*, but indeed *have to, mobilise the generic package in a certain way*.

Additionally, in a particularly revealing example of the temporary nature of project outcomes, the SAP implementation at IndCo did *not* follow a linear direction towards a hypothetical initial, clearly defined, end objective. Although some initial design options promoted uniformity and central visibility (subsection 6.1.3), other options promoted diversity and autonomy (subsection 6.1.4). Importantly, *after* SAP FI started being used, the system configuration itself, through the actions of local actors, evolved in a direction which the project team had not anticipated. Local actors were able to autonomously mobilise SAP FI configurations in a way that promoted the maintenance of diversity across the various countries, by changing country level charts of accounts (subsection 6.1.5). This divergence across countries made consolidation and central visibility more difficult, and created difficulties in the adoption of additional SAP modules. As a reaction, additional adjustments and changes of orientation were incorporated in SAP design during 2001. I.e., central organisational actors mobilised SAP FI again, to align its configuration with their objectives. At this later stage, configurations of SAP FI were mobilised towards the creation of uniformity and central visibility and control within the organisation, and affecting the extent of autonomy of local sites.

Therefore, in line with the discussion in chapter 2, the financial accounting module SAP FI can be conceptualised as a mechanism involved in *disembedding* and *reembedding* processes, to order “social practices (...) across space and time” (Moilanen, 2008, p. 253, based on Giddens, 1990 and Jones and Dugdale, 2001).

Viewing SAP FI as a *disembedding* mechanism, this section starts explaining the mobilisation of SAP FI. Actors attempted to shape, in a relatively structural way, the particular “interpretative scheme” underlying SAP FI and according to which SAP FI would “lift[] up (...) local social relations to a global level” (Moilanen, 2008, p. 253). In turn, (disembedded) uniform information produced through SAP FI would facilitate central visibility and control and hence facilitate a greater intervention of central actors (the reembedding processes). The focus of this research is on the *disembedding* processes to be carried out through SAP FI (as analysed in this section) and other actors introduced in the network (the CC and the SSC, as analysed in subsequent sections), rather than on the subsequent reembedding processes.

A combination of a processual and dynamic perspective (e.g., Burns, 2000; Carter *et al.*, 2008a and 2008b; Jarzabkowski and Whittington, 2008; Pettigrew, 1995) and Clegg’s (1989) framework (Ribeiro, 2003) enriches the above discussion about how SAP may be (and indeed has to be) mobilised by (human) actors. As argued in this section, SAP FI configuration at IndCo at particular moments represented (temporary) outcomes of potentially conflicting strategic attempts by various actors to mobilise the package. These mobilisation attempts pushed in divergent directions and towards different configurations, in order to achieve actors’ strategic objectives, by creating new Obligatory Passage Points.

6.1.3 INITIAL DESIGN OPTIONS PROMOTING UNIFORMITY AND CENTRAL VISIBILITY

The SAP FI system, as initially designed in IndCo, included a number of features promoting organisation-wide *uniformity and central visibility*. This subsection

first analyses how this outcome was supported by a group level decision, related with its consolidation solution. Second, it analyses the influence of previous projects, beliefs and rules within the IT Department. Then, it analyses the influence of consultants, which varied across various dimensions and timings of the project. Finally, it argues that the role of the actors from the accounting and finance area was less clear and therefore is only analysed later, after additional insights about SAP design options have been discussed.

6.1.3.1 The influence of IndCo's group and its consolidation solution

Some features of the implemented SAP FI promoting uniformity and central visibility derived from the influence of IndCo's *group*. An important requirement for the new SAP FI model was to interface with the consolidation solution Hyperion, adopted by IndCo's group and every group company⁵. A consultant directly related that imposition with a Hyperion-based accounting consolidation project developed at IndCo's group level shortly before the start of the SAP FI project:

“At the time, IndCo's group had developed a parallel project in consolidation, with Hyperion software. That was a software and a set of processes which (...) immediately created a kind of a basilar rule, a central rule in the definition of processes.”

This imposition was a striking difference when compared with previous SAP implementations at IndCo. In 1995, the Spanish IT department developed a project to

⁵ Additionally, SAP FI also had extensive interfaces with the operational legacy system, SOIC. A consultant described how “SAP allowed ‘mapping’ the information between the [consolidated] management component [Hyperion for Management] and the operational component of SOIC, through traceability. Showing how the [information] flows passed through SAP. The roads that traversed SAP”. A similar traceability existed between the Hyperion consolidated *financial* accounting solution and the operational SOIC solution.

implement SAP FI and two other SAP modules in Spain⁶. However, no interfaces were created between SAP FI and the existing consolidation solution. As a consequence, without such interfaces, the financial accounting information produced by SAP FI in Spain was sent to the consolidation team, whose members then had to manually enter that information in Hyperion – implying a loss of central visibility and reliability, in addition to a significant work load to the consolidation team members.

The same consultant above, as well as various other respondents, noted the striking differences of the impositions faced by the project team in Portugal, when compared with the previous Spanish project.

“That project [in Spain] was done at a time when Hyperion and a number of harmonisation processes were not a given yet. So, it was mostly developed considering Spain and its reality, which was a little different from the Portuguese reality and the reality which was presumed to be implemented in other countries in the future.”⁷

“There was a group-wide norm imposing Hyperion. (...) All sub-holdings had to obey to that tool and to those data structures. There was that group-wide norm, right at the start, which worked both in favour of the project (since the SAP template of the first implementation project developed that functionality) and against [the project], when someone wanted to get away from that straight-jacket.”

It should be noted that Hyperion, as a technological device, only became a technological imperative due to group level imposition that new financial accounting solutions at company level (such as IndCo) should interface with the Hyperion consolidation solution. Otherwise, without that group imposition, an outcome similar to

⁶ The other modules were SAP Human Resources (SAP HR) and SAP Profitability Analysis (SAP PA). This particular architecture (SAP FI, HR and PA) did not include SAP's operational modules and could not really be considered an integrated solution. Evidence of the lack of integrative potential in such architecture, as indicated by two Portuguese IT interviewees, is that the Profitability Analysis module never actually worked, due to the absence of operational data in the implemented system.

⁷ As described in the previous chapter, the Spanish decentralised “reality” this interviewee was referring to was reflected in controlling areas defined at a low hierarchical level (the plant level) and in cost centres nomenclature diversity across plants.

the one occurred in the 1995 SAP FI implementation in Spain (the lack of interfaces between SAP FI and Hyperion) might have emerged.

In a processual perspective, it may be argued that the *technological* path-dependency was limited and actually only apparent. On one side, there was technological path-dependency, since a previous implementation of the consolidation solution across the group created a technological device which subsequently adopted technological devices had to interface with. However, on the other side, this imposition or “path-dependency” was not purely technological; as above, it can be argued that it was not technological *at all*, since the imposition derived from central, powerful actors at group level, who defined constraints to new solutions related with the previously implemented technical solution. As a conclusion, the path-dependency concerned technology, it was *about* technology. However, the dependency did not *derive* from technology, but rather from decisions and impositions of organisational *human* actors – impositions which were accepted by the other involved actors.⁸

6.1.3.2 The influence of the IT Department and previous IT projects

The IT Department influenced the way SAP FI was mobilised in two noteworthy ways. First, previously developed beliefs and strategies of the IT Department promoted the selection of a single, integrated solution for IndCo. Second, the distribution of power within the IT Department promoted the development of a *single model* to be applied across IndCo. These two influences are now explored.

⁸ This analysis is developed in the next chapter.

The first promoters of a unified approach were the *IT Department beliefs and strategies*, derived from previous projects and experiences. As mentioned, in mid 1990's, IndCo started industrial operations in a new country, quite distant from IndCo's centre and other locations. Due to the distant location of this subsidiary, there were (and still are) few operational interactions with the rest of the group. Therefore, implementing the same information systems which existed in other locations had less potential benefits. After considering various alternatives, Ross was the chosen commercial package for the new plant, as a single, integrated system, including all functional areas, in preference to alternatives such as SAP and Oracle⁹.

As indicated by an IT interviewee, the “*first global ISs strategy*” was developed during this project. During the planning stage, the then CEO and the IT department developed the vision to develop and test this integrated system in that country, so that later it could be rolled-out to the entire IndCo. This global ISs strategy left an enduring effect within the IT Department. It created the belief, within the Portuguese IT department, that centralisation of ISs through the implementation of a single, integrated system, would be the future direction. This belief, at this stage, referred only to a broad vision of a future system, but was a “visionary object”, a conceptual object with “high levels of legitimacy within [this] particular [IT] community” (Briers and Chua, 2001, p. 242).

However, there were delays in the start of operations at this plant and in the development and testing of the Ross model. Therefore, a mature, fully-integrated Ross system was not ready to be implemented in Portugal in 1997/1998 yet (to replace the

⁹ Ross strong customer and solution support in that country at the time proved to be crucial.

existing financial accounting solution) and in the new plants to be soon set up in two other countries (as regards both financial and operational systems).

In spite of the impossibility to roll-out a Ross-based model throughout the organisation, the decision taken during the Ross project had an important consequence. This decision shaped the global *strategy, vision and beliefs* at the IT Department: *centralisation of ISs* was the future, requiring progressive consolidation of the disparate solutions into a single system. As a visionary object, “the precise identity” of this future integrated system was not yet known, and allowed for the flexibility for this vision to be fulfilled through other systems other than Ross (Briers and Chua, 2001, p. 242). As mentioned, SAP came to embody this visionary object, as SAP came to be adopted over the years in an increasing number of functions and locations¹⁰.

The second promoter of a unified approach was the *distribution of formal power* within the IT Department. This influence was less visible and, from an overall organisational strategy perspective, less intended. As described in the previous chapter, by 1998 the formal power within the IT Department had been restored to Portugal, where the Global IT team carried out the major IT developments. As regards the SAP project, an IT respondent pointed out that the development of a single model (instead of multiple, country-specific models)...

¹⁰ A remarkable exception was the country where Ross had been implemented. This country preserved Ross at least until the end of the fieldwork, in 2008, for a number of reasons. At a first stage, when SAP FI became the financial accounting solution of virtually all subsidiaries, implementing in this country the financial accounting module of SAP *alone* (while leaving the remaining Ross system) would disrupt the country-level integration achieved with the integrated Ross system. In addition, the highly autonomous operation of this subsidiary limited the gains of integrating this subsidiary with the rest of the organisation; this limitation existed both in the mid 1990's (when the distinct Ross system was developed in this country, in isolation from the others) and in later years (when there could be a case for replacing Ross by SAP). Finally, it was also considered that, given the typical long life-cycle of ERPs (Fahy, 2001), abandoning the Ross ERP only a few years later after its implementation would be premature. Only by the end of the fieldwork, the replacement of the Ross system by SAP started being planned; this plan was not included in the research.

“...depended on the structure of the ISs [Department]. If the structure of the ISs of all the countries was within their power and had their own teams to do this... ‘OK, fine, SAP has been chosen, but now each one does it in its own way.’ But all development capacity was in the team in Portugal.” “We thought that if we did only one project, it would be (...) cheaper, because there would be just one single team; but also in a perspective of ISs uniformity, rather than – this wasn’t even mentioned – in an organisational perspective, or thinking about a possible SSC, or something similar.” “First, we [in Portugal] already had experience in integrating solutions. Moreover, if there’s only one single team developing the model, it is natural that it will develop a single model. Why should it do a different model here, another one there?”

Therefore, the centralisation of formal power and resources within the IT Department in Portugal, and the creation of one single team which developed one single project for the various countries, contributed to the development of *one*, single financial model, with a central set of processes which were common to the three countries¹¹. This centralisation facilitated the materialisation of the IT Department’s beliefs and strategies about a future single ISs architecture – the first identified promoter. The combination of these two promoters helps explaining the central role of the IT Department in the selection of options favouring uniformity, during the SAP FI project.

6.1.3.3 The influence of consultants

A methodological note and an introduction

As discussed in chapter 4, an important perspective of the initial research topic concerned the role of consultants implementing ERP systems in the management accounting and control area. Exploring this issue, the fieldwork highlighted relevant roles of IT consultants in both general and particular aspects of the various SAP projects, including not only the original SAP FI project, but also the more recent

¹¹ Nonetheless, this common set of processes allowed accommodating different processes, if desired or legally required.

Product Costing project. In addition, some insights were also obtained about the role of consultants *beyond* the particular IT area.

However, during the fieldwork the research topic changed and started exploring the power shifts within IndCo, in which three innovations were considered to be crucial: SAP FI, the CC and the SSC. Consultants played a particularly relevant role in the first and third innovations, but less in the second. In addition, the consultancy firm involved in the SSC implementation was not the one which cooperated with the researcher; consequently, the researcher had no access to the consultants' perspective. Therefore, the role of consultants in those innovations could only be adequately researched as regards the SAP FI project.

In addition, a highly detailed analysis of the SAP FI project, both in depth and in width (in line with Oliveira, 2007c), would further enlighten the multiple roles played by consultants; however, it might also distract from, rather than be aligned with, the (new) research focus, encompassing the three innovations. Therefore, the concern is on understanding how consultants influenced the degree of uniformity and central visibility which emerged from the SAP FI mobilisation process.

For the issue currently under examination (the initial design options promoting uniformity and central visibility), consultants' influence was different across various areas. Consultants' influence was *limited* as regards the definition of initial *strategic* issues. However, some SAP configuration options had long term repercussions in fundamental organisational issues, such as the introduction of the other innovations analysed in this chapter. In addition, their contribution was crucial to the operational stage of SAP FI design process, not only in a technical perspective, but also as regards

the outcome of conflicts which emerged within the project team. These contributions are now analysed.

Consultants' constrained strategic influence in initial choices

The role of consultants as regards the initial, strategic choices in the SAP project was constrained by directives provided by IndCo. Very significantly, IndCo's employees and consultants converged on this insight, as the following respondents (an IT respondent and two consultants, respectively) illustrate:

"We had a pragmatic approach since we started, because we have [internal] people in the project who know the processes well, who know what they want and so we went directly to the point. I'd almost say that we've considered consultants more as SAP technical consultancy, rather than business consultancy - in our case."

"The projects were neither about processes, nor about organisation. They were about systems. Always were: information systems. (...) The organisation was a given. If there were [organisational] change objectives, they were considered as a given. The company communicates its perspective for the organisation. Of course, when the system forces a certain way, the organisation also adapts a bit, to use that system well, but only in this aspect. Therefore, there was no process redesign, not at all."

"These [systems and routines from Hyperion] were walls built around the borders of the project. You can ask me 'But were those limitations? Could things have been done in another way?' It wasn't a 'forum', it wasn't part of the work. (...) We already had lots of work within that area, so no one dared to entertain himself by climbing up the nearest skyscraper, to try to look beyond or jump the fence. Everyone thought: 'these are my limits and I have to create pipes [between SOIC, the legacy operational system, and Hyperion, the consolidation solution]; the connection points are exactly here, in this position, neither more to the left nor to the right; so let's assemble the building, so that the screw fits right there'." (slightly adapted quotation)

In general terms, consultants' contributions had limited influence on initial strategies. In fact, consultants' reduced autonomy to shape the scope and objectives of the SAP FI project limited their strategic influence. As Legge (2002) noted, "if (...)

clients have clearly defined problems for which they require a solution then they are less malleable than if they are relying on the consultant to participate in problem definition” (p. 79). In fact, although consultants did contribute to the adoption of single, unified approaches, they did so largely within a scope and direction defined by IndCo.

At an initial stage, consultants contributed to the adoption of single, unified approaches because other actors (central actors at a group level) had set rules imposing that new, company-level financial accounting solutions should interface with the group consolidation solution, Hyperion. Importantly, this team of consultants had recently implemented SAP FI in a retailer business unit of IndCo’s group, including its interface with Hyperion. This greatly facilitated that consultants used their previous experience to create a model supporting the central, uniform perspective required to interface with Hyperion (see discussion on page 395 and following). In addition, their contribution was framed by their inclusion in a single development team, defined by IndCo’s IT department. At a second stage (see subsections 6.1.5 and 6.1.6, in particular page 415 and following), consultants contributed to the remobilisation of SAP FI in order to further increase uniformity across IndCo. However, the contribution of consultants was again framed by other actors: this time, by central actors from IndCo’s accounting and finance area.

Notwithstanding consultants’ constrained influence in defining *initial* strategies, as acknowledged by both IndCo’s actors and consultants alike, the way SAP was *mobilised* under the strong influence of consultants (during the design and implementation stages) had strategic and long-lasting repercussions in IndCo. For example, as the last quote anticipated, SAP FI was implemented as a “simple” financial

accounting system, linking the operational system and the consolidation solution and trying to prevent future constraints in SAP development. As a consultant summarised,

“It was a simple system, in terms of its basic structures, of its configuration, of its functional and technological components. (...) No one wanted to make more than what was needed, knowing that if one did more, one might be creating a future constraint. (...) It was the necessary and sufficient system for that reality.”

Empirical insights, from both IndCo’s members and consultants, depicted how emerging interactions between these actors converged into ruling out more sophisticated analyses (e.g., adopting profitability analysis) and into avoiding certain related transversal SAP concepts (e.g., the “division” concept¹²). While the constraints set by IndCo’s members, limiting the scope of the project, were important, consultants’ awareness that such alternatives could create future constraints in SAP development was decisive.

The attempt to avoid creating future technological constraints, or virtually lock-ins, was particularly important for two reasons. First, from a technological perspective, the (not yet decided, but plausible) possibility of replacing the operational legacy solution SOIC with SAP operational modules in a near future advised against high investments in sophisticated financial systems; in fact, such systems would have to be significantly changed if, and when, SAP operational modules were adopted. Second, from an organisational perspective and as argued below in subsection 6.1.6, strategies for the financial area were, at best, only emerging at the time. As such, developing the strictly “necessary (...) system for that reality” (in the above quote of a consultant) was also adequate for such strategic uncertainty.

¹² See SAP (2005d and 2006).

Consultants' influence was also crucial in more short term issues – but which, in turn, also had longer term repercussions. The importance of consultants' technical experience as regards the activities of the project team and as regards conflicts which emerged within the project team is now explored.

Consultants' technical influence within the project team

To understand consultants' technical influence (as well as their influence in the conflicts within the project team), there is the need to examine the composition of the project team and the expertise and perspective of the various actors. The project team included IndCo's members from four countries: Portugal; the two other countries where SAP was going to be implemented; and Spain. The team also included consultants from Portugal who, as already mentioned, had been involved in a previous SAP FI project in the Retailer business unit of the group.

Considering only *internal*, IndCo's members of the project team, Spanish members had a massive advantage over Portuguese members as regards IT knowledge and, in particular, SAP knowledge. The integration of five Spanish employees in the operational team was motivated by their knowledge about the SAP system implemented there in 1995 and which was planned to be used in the actual design of the model, as discussed below. In addition, Portuguese members at an operational level had mostly a functional expertise in the accounting and finance area. However, no Portuguese members from the IT department joined the operational team¹³.

¹³ The main reasons for the absence of Portuguese IT members were that they had no knowledge either about SAP or accounting. In fact, the IT department had not provided support to accounting and finance applications before. Moreover, existing IT members were indispensable to support the development and support of the SOIC operational system – a task that only they could carry out, since it was an in-house

As a result, SAP knowledge (and, in general, IT knowledge) was restricted to the Spanish IT members and to consultants. In addition, since the consultants had recently implemented SAP FI in the retailer business unit of the group, they had already developed several processes which supported the linkage with the group consolidation solution, Hyperion. This combination of technical expertise (general SAP FI knowledge and specific experience implementing and linking SAP FI with IndCo's group consolidation solution) was a distinctive edge over the other project team members (the Portuguese and, importantly, even the Spanish members).

Consultants' unique expertise was crucial as regards SAP technical issues – as anticipated by IndCo's actors when consultants were integrated in the project team. In addition, this unique expertise was also crucial as regards the project dynamics at the *operational* level, where conflicts emerged around the design of the SAP FI model, as discussed next.

Consultants' influence in the conflicts within the project team

Consultants' expertise was crucial to influence the outcome of conflicts which emerged within the project team during the design stage, and which were largely unforeseeable at the outset.

The initial plans as regards the design of the SAP FI model relied significantly on the Spanish experience and system. As described in project documentation, the Spanish system would be a basis, e.g., for SAP configuration, interfaces with other systems and conversion processes. As a consultant summarised,

developed system. Finally, it was perceived that strictly technical IT expertise would not be central to the project success at a detailed level, and therefore such area could be allocated to other people.

“[Initially], we thought about the possibility to reuse something which might have been done in Spain. So, in that logic, at the start, we thought of conceiving a system for Portugal and the other countries which would be a merge, (...) inheriting many things from the Spanish system.”

However, the project did not evolve as initially planned, given emerging objections of Portuguese team members from IndCo. IndCo’s Portuguese members lacked knowledge about SAP and IT in general and, in particular, the Spanish SAP model. Therefore, at the start, it was difficult for them to fully understand the Spanish model, to take conscience of its assumptions and to conceptualise its consequences. But as the work progressed, they became aware of certain features about which they took issue.

The contested features of the Spanish model have already been briefly described in the previous chapter, during the analysis of the prevailing circuit of system integration in the late 1990’s (see 5.4.4). The Spanish model accommodated a high level of diversity and autonomy. Two examples are the existence of distinct charts of accounts and controlling areas at a plant level; and the requirement that invoices including items of distinct plants should be posted in several stages and across several plants. As argued below in this section, at the time, Portuguese team members had no clear directives to privilege a central perspective within SAP FI. However, it became apparent to Portuguese team members that the Spanish configuration options were not adequate to produce consolidated information at a higher level and were not aligned with the preliminary steps towards centralisation taken through the creation of regional back-offices in Portugal (see subsection 5.3.3, page 323).

However, IndCo’s Portuguese team members were constrained by their lack of SAP (and even IT) knowledge, when compared to Spanish team members. Consultants

were then crucial to support the perspectives and objectives of the Portuguese team members, as expressed in the following quote from an IT member and from a consultant, respectively:

“People from Spain were always trying to impose their model, which no one knew. They knew something about SAP and we knew nothing at all. (...) But we had consultants, from Portugal, that I came to confirm that had in-depth knowledge about SAP FI and about the model from the Retailer, because they had been there. So they started providing us some information. (...) And we started realising that the Spanish model was not as good as they [the Spanish] thought it was. And then we started this [new] model.” “It was essential to have on the side of the – say – ‘headquarters’ someone who could actually argue with them [Spanish members] at an even level [of SAP knowledge].”

Initial choices were altered as the design process progressed. Interviewed consultants emphasised the inadequacy of the Spanish model, with a country-level scope and largely aligned with a highly decentralised organisation. However, consultants – as well as some IndCo’s members - also highlighted the importance of having been able to provide effective and quick alternatives, some of which based on the Retailer project. The following quotes (the first two from two interviews with one consultant, the third one from an interview with another consultant) highlight this:

“What actually happened was that (...) the Spanish system was hardly ever used. It had been developed within another logic, another scope, another environment. And so it did not have capacity to support the required functionalities in an heterogeneous environment, with various companies, various company codes, various charts of accounts, etc..” “The core template was much based from the Retailer [SAP FI], because there was the Hyperion solution for management and financial accounting [at a group level]. (...) I’d say that 80% of the Retailer project (...) was used in IndCo.” “A good deal of the configuration was transposed as it was in the Retailer. But that is not “copy-paste”, because you need to know how to do that. (...) Know-how was transferred between the projects. Have no doubt about it. (...) When I say ‘know-how’, I mean programs themselves! Much work was spared.”

Therefore, consultants were decisive in the creation of a global SAP FI model as an alternative to the Spanish model and addressing (in part only emerging) objectives of Portuguese actors. Considering the conflicting objectives and perspectives of the Portuguese and Spanish members of the implementation team, consultants were crucial in several ways. Consultants provided the Portuguese members with the technical knowledge of the SAP tool which they lacked. In addition, they contributed with ready-made functionalities and a model aligned with the group level Hyperion consolidation solution, which provided significant intra-group legitimacy.

Finally, consultants' intervention had important repercussions as regards power issues, both at a micro level (and short term horizon) and at a macro level (and long term horizon). At the micro level and short term horizon of the SAP FI implementation team, consultants were decisive in determining the outcome of the conflict between Portuguese and Spanish members, overcoming the knowledge disadvantage of the Portuguese members of IndCo. Therefore, consultants' interventions had clear short term power repercussions, at the micro level of the implementation team.

In addition, at a broader, macro level of the entire organisation, consultants contributed to the construction of a circuit of system integration promoting the objectives and interests of key central actors. This contribution becomes clearer if a long term horizon is considered. Indeed, as this chapter argues, subsequent innovations (the Corporate Centre and the Shared Services Centre) promoting the objectives of central actors were strongly supported by these initial choices in the mobilisation of SAP FI – and to which consultants were crucial.

This section has already analysed the influence of IndCo's group and its consolidation solution, the influence of the IT department and previous IT projects, and the influence of consultants. The motivations and influence of key actors from the accounting and finance area are preliminarily analysed next; a re-examination of these issues is made later in subsection 6.1.6.

6.1.3.4 The influence of the accounting and finance area – a preliminary examination

The accounting and finance area played an important role in some *structural* aspects of the mobilisation of SAP FI, such as imposing the compatibility and interface with the consolidation solution. However, this requirement derived mostly from accounting and finance area at a *group* level - rather than specifically from IndCo.

At this point, a research note is required. The influence of IndCo's accounting and finance area was less clear for the researcher, and presented more nuances and puzzles. The complexity of the analysis was caused, first, because there are two levels and two types of actors to be considered: 'central' actors; and 'local' actors scattered across the subsidiaries. Second, the complexity of the analysis also derived from apparently contradictory insights from the field research, suggesting alternative (or, at least, different) mobilisation objectives and actions from some of its actors, in particular from the accounting and finance area.

Therefore, a fuller exploration of the influence of the accounting and finance area is postponed to subsection 6.1.6. Before that, the next subsection explores forces which influenced initial design options promoting a *diversified* approach and making *central visibility more difficult* – the *opposite* outcomes of those explored so far.

6.1.4 INITIAL DESIGN OPTIONS (UNINTENTIONALLY?) PROMOTING DIVERSITY AND AUTONOMY

In spite of the promoters of uniformity identified above, some initial characteristics of the SAP project suggested *traits of autonomy*, in line with previous approaches prevalent in IndCo. Three aspects are analysed: the *number and location of servers*; the *articulation between charts of accounts*; and *local actors' capacity to change local configurations*. Initially, the implementation team did not anticipate major consequences of these technical aspects in terms of accounting practices. However, the actual daily operation of SAP by actors across IndCo proved otherwise. This subsection now analyses the reasons underlying these initial choices, as well as their unanticipated consequences.

6.1.4.1 Number and location of the servers

The first aspect concerns the number and location of the “production” servers¹⁴. A different production server was set in each of the three countries. IT members and consultants highlighted that this option intended primarily to avoid the risk of communication failure with a particular country. However, as discussed below, the lack of clear directives to promote uniformity within the financial area and systems was an important factor to contemplate and adopt this option – an option in line with previous IT architecture options, in which production servers were decentralised.

At a first stage, the SAP FI model was designed and tested in a single “development” server, in Portugal; the centrally defined model was then transferred to

¹⁴ A “production” server supports everyday operations, storing the databases with actual business data and processing actual business transactions. Typically, solutions used in the production server are previously designed and tested in a “development” server; when the solutions are ready to “go live”, they are transferred to the production server.

the production servers. Given the development of one, single model, consistency across countries was thought to be ensured. However, this model could only be guaranteed to be the same for all countries *a priori*, at the “go-live” moment. After the “go-live” moment, the model could be subject to local changes - as made clear below.

6.1.4.2 Articulation between charts of accounts

The second, related aspect concerned whether the charts of accounts of the three countries would be articulated, or not; and if so, how. The issue was adopting *parallel accounting* (hence, allowing articulation) or not (in which case the charts of accounts of the various countries are independent). In a parallel accounts approach, there is a common chart of accounts for the various countries¹⁵; additionally, each country has a parallel chart of accounts (if desired or legally required), and each of these parallel accounts is linked with the common chart of accounts. A parallel accounting solution has the potential to greatly improve financial accounting consolidation activities. In fact, parallel accounting allows companies to incorporate different valuation approaches and to obtain, simultaneously, a tailored solution to each country, and a common, uniform basis for all the companies.

However, initially, the *option* for parallel accounting was *not made*, and each of the three countries had an *independent* chart of accounts¹⁶ – in line with the pre-SAP

¹⁵ A parallel accounts approach is one of the alternatives to implement parallel accounting in SAP. Another alternative is the ledger approach, consisting of a Leading Ledger (for group reporting) and Parallel Ledgers (for individual countries, etc.). For details, see SAP (2005b). Only the parallel accounts approach is analysed here, since this was the alternative chosen by IndCo at a later stage. ‘Parallel accounting’ is here analysed at a country level, in line with IndCo’s case, although it can be defined at different organisational levels.

¹⁶ The later SAP FI roll-out to an additional country, again based on a separate server and chart of accounts, increased the number of countries with independent platforms and structures to four. In this fourth country, there were important implementation problems, since the standard SAP package did not accommodate some country specificities (e.g., tax-related, among several others). The consideration of this fourth country would considerably complicate the analysis of the issue at hand (the adoption of

situation. Changes could be made in any chart of accounts, producing no effects on the others, since they were not articulated. It is true that, when compared with the previous Spanish SAP model, which allowed for different charts of accounts across plants, this model promoted greater information uniformity and simplified aggregation, since it imposed uniformity at a country (rather than plant) level. However, the technique of parallel accounting - which would best support the production of aggregated information - was not adopted.

In spite of the independence of the charts of accounts, the project team still tried to obtain uniformity. An important, legal aspect was that only Portuguese legislation imposed a legal chart of accounts, whereas legislation of the two other countries did not; therefore, *a priori*, for those two countries any chart of accounts would do. Additionally, IndCo was just starting its industrial activities in one of those countries, and the accounting activities of its previously existing commercial companies had been outsourced; therefore, it had no past accounting configurations which might conflict with the new ones and potentially create some kind of lock-in (e.g., Dechow and Mouritsen, 2005). So, it was decided to adopt the Portuguese legal chart of accounts in the three countries – which was therefore the (same) starting point for the three countries.

6.1.4.3 Local actors' capacity to change local configurations

Finally, the third aspect which was in line with previous arrangements and accommodated diversity and autonomy was allowing country-level IT staff to change the local charts of accounts in their local server – an operation which affected their

country-level, independent servers and charts of accounts), with no major empirical or theoretical advantage. Therefore, the remaining analysis is restricted to the first three countries of the roll-out.

country only. Granting that capacity to locals was pragmatically justified by the lack of central, remote access to the local production servers. Therefore, should that option not exist, a central IT member would have to travel to each country in order to locally, *on site*, implement any required change – which was considered to be a clearly unfeasible option.

6.1.4.4 Consequences of keeping in line with existing configurations

The decisions, mostly due to IT concerns and objectives, to decentralise SAP FI production servers and their access to local IT members, and to allow for independent charts of accounts across the countries, were in line with previous IT and financial accounting configurations.

However, the existence of a different production server in each country, each one with an independent chart of accounts, combined with the authorisation of local IT members to change local configurations, created the risk that, as time passed, the models could start diverging. As a CC member acknowledged, the initially chosen configuration ...

“...left the doors open for local teams to start making changes.”

A priori, these configurations did not imply diversity across the sites. However, the actual use of the system by local actors, after it “went live”, soon did lead to divergence between the models across the sites. This divergence is now discussed.

6.1.5 SAP FI IN USE: DIVERGENCE AND REMOBILISATION

As the system “went live” and as the actors started using the system, the risk of divergence between charts of accounts (stored in local production servers and changeable by local IT actors) actually, and quickly, materialised. The models did start to diverge across the countries. Local actors’ usage of the system soon revealed that the chosen configuration would not facilitate consolidated activities and analyses. An IT interviewee provided very precise examples of how the models started diverging:

“Accounts creation; the very concept included in those new accounts; the lack of information to the other entities about the creation of a new account.”

Interestingly, the limitations of the existing “autonomic” configuration of SAP FI were unexpectedly highlighted by developments on a totally distinct area, beyond the areas of accounting and finance: the development of SAP’s logistic modules.

“When we started linking the financial area with the logistic area, including the commercial and purchasing parts, we started noticing there would be problems. (...) If we didn’t have the same [common] chart of accounts (in SAP FI), we would have to have, in parallel for each country... [distinct parameters for the logistic modules]. If we had ten countries, we would have to set ten different sets of parameters. On the other hand, should we have one single model, we would only need to have one set of parameters.”

Among the several respondents who analysed this situation, a CC manager argued that...

“The moment that [divergence] was detected, a change of logic was immediately implemented. We changed to a very large single chart of accounts [(...) and to a single server], which allowed, already within the logic of a Shared [Services Centre], that each country would work with the accounts we defined – and if it wants to open accounts, it has to ask to a centralised manager, who is here [in Portugal].”

Therefore, after the divergence across charts of accounts was detected, the project team quickly returned to the design stage, to mobilise the package differently. Technical and organisational changes were quickly implemented to enforce uniformity: installing a single server in Portugal; adopting a parallel accounts solution (with a common chart of accounts, articulated with country-level charts of accounts); and restricting to (only about five) central actors in Portugal the capacity to modify the country-level charts of accounts. In addition, and obviously, only central actors could modify the common chart of accounts.

An IT interviewee thus commented the rationale orienting the creation of the common chart of accounts and, after its creation, the centrally constrained possibility to create additional accounts (in line with the current approach in SAP roll-outs of keeping the overall model, while still adding specificities when locally required):

Respondent: *“The idea has always been the following. We have a structural plan [chart of accounts]. If a plant or a number of plants needs more information, we will add it [the specific, detailed accounts] here [a location in the accounts structure]. The other plants don’t use it, they use [the accounts] only down to this [higher] level; but there is this detail [potentially] available for all: those who need it, can use it; those who don’t need it, don’t use it. If we have service companies which have a [specific] need, we will add [the specific, detailed accounts] here. (...) That’s why the chart of accounts had more than three thousand accounts and suited all needs.*

Researcher: *The chart of accounts had many accounts, but I believe there is a “struggle” between the SSC and some countries, in order not to multiply the accounts even more.*

Respondent: *Of course. One thing is to have the notion that there are plants or activities which have some particularity and therefore need something else [specific accounts]. Another thing is to grant people creative freedom, so that they invent.”*

It is clear that, although some interviewees described this aspect as a mere IT issue, these *apparently minor technical issues* actually had consequences about ‘*conditions of possibility*’¹⁷ in the accounting domain, in particular as regards local actors. In other words, it defined *which alternative courses of action were offered (or denied)* to actors, and defined the conditions of possibility on whether accounting models and practices could evolve differently in the various locations (or not).

The efforts to create uniformity across the organisation were not limited to structures orienting information entry. Outputs were, as much as possible, uniform across the plants. As an IT respondent explained,

“We always try to use the [SAP FI] standard [reports] (...). Because if we go along meeting all the preferences of the final clients, we’ll have different reports to each person, for the same information. In fact, that also happens in the other areas [beyond the financial area]. We try that there is not much freedom to create, otherwise...”

Indeed, as a SSC member noted, not a single member of the SSC was able to create SAP reports. *All* actors – including members of the (central) SSC – had to resort to the (central) IT team should they require a new SAP report. This restriction promoted uniformity in accounting information usage and in the underlying accounting rules of meaning across the entire organisation. And this example sets the problematic beyond the central vs. local dichotomy. Local actors are not the only ones who are confronted with restrictions; in this respect, central actors of the SSC are confronted with similar restrictions.

¹⁷ The concept of ‘conditions of possibility’ is often associated with Foucault’s work on ‘archaeology’ (see Baxter and Chua, 2003, Llewellyn, 1996 and works referenced therein).

This section examined SAP FI design options promoting uniformity and central visibility, as well as options that accommodated diversity and autonomy. Then, this subsection revealed how the *actual* use of the system led to its divergence across countries - and how the system was subsequently (re)mobilised in order to restore the initial uniformity and prevent that divergence to (re)occur. This additional empirical material is crucial to explore, next, an aspect left so far mostly unexplored: the role of the accounting and finance area.

6.1.6 RE-EXAMINING MOTIVATIONS FOR THE DESIGN OPTIONS AND THE ROLE OF THE ACCOUNTING AND FINANCE AREA

Subsection 6.1.3 concluded by explicitly postponing the analysis of the influence of actors from the accounting and finance area in the mobilisation of SAP FI. Now, considering the insights about the SAP FI project already presented, and additional ones to be presented now, this subsection discusses the various interpretations about the role of key actors in this area.

6.1.6.1 SAP FI initial configuration as a result of absence(s) of mobilisation efforts?

In a *preliminary analysis*, it may appear that the selection of SAP FI, as a common financial accounting solution was, to a great extent, derived from technical reasons: addressing the perceived threat of the Y2K bug in an existing financial accounting solution; replacing obsolete financial accounting solutions; selecting a financial accounting solution to new sites, in countries whose legislation did not impose a particular chart of accounts stringent legal requirements; enacting a general IT strategy of moving towards single, organisation-wide solutions.

A further analysis should recall the initial mobilisation of the package, configured as a single system but *allowing for local adaptations* of some features. This initial outcome may actually be interpreted as a *consequence of an absence*: the absence of a determined attempt of central actors from the accounting and finance area to mobilise SAP FI to enhance their central visibility and intervention capabilities. It may be argued that an attempt to achieve such objective would require the exclusion, from the start, of any possibility of divergence of the financial systems, across a rather heterogeneous and autonomous organisation. It appears that such ambition of those central actors was, at best, incipient. Although a CC manager stressed that “*the idea, from the start, was to uniform and standardise, to allow closing the books faster*”, this (stated) objective did not materialise in several initial options by the implementation members, who mostly rejected the existence of an explicit orientation towards imposing uniformity.

In the final part of subsection 5.3.3, it was briefly argued that by the end of the 1990's, there was a lack of a clear, perceived strategy for the accounting and finance function. This lack of strategy included both the structure and the information systems supporting this function – which at the time, and in brief, were mostly decentralised. An IT member was one of the respondents who shared these insights about the lack of an explicit strategy:

“At the start of the SAP FI project, I cannot say that there was a precisely delineated strategy, because there was the need to address certain problems, such as the Y2K. The evidence that there was no delineated strategy, was that only in 2000, as we were preparing the roll-out project for [a particular country] and Spain and integrating the logistic and the financial areas, (...) did we start realising that it would be very difficult to continue with the existing configuration of each country having its own chart of accounts. (...) If there was [a strategy for an integrated SAP FI], it wasn't conveyed [to the implementation team] and it wasn't carried out.”

This lack of (an at least explicit) strategy caused uncertainty and affected the evaluation of alternative courses of action, both in the IT and in the accounting area. As regards the IT area, an IT respondent reflected on consequences of this uncertainty on the decision about the number and location of the production servers:

“Sometimes, there can be a very well delineated strategy, and we know precisely what we want. Other times [like in our case] it’s not like that, we don’t know precisely what we want, there are very distributed issues, different cultures, etc.. And the people have fear, are afraid. Even within ISs. There was fear of placing a single server here [in Portugal], while the plants are in [a distant country]. [Researcher: Should the communications fail...]. Respondent: Exactly. What conditions were there to take a chance? It’s far simpler to place a server there”.

As regards the accounting area, a quote from the same respondent (already included in the previous chapter, but reproduced again due to its significance) expresses a similar perspective, on the possibility of adopting a single chart of accounts, within a parallel accounts solution:

... “there was no interest in that. Each country was responsible for its accounts. Provided that [the new system] would consolidate in Hyperion [at a country level] – and it had to consolidate, by hand, “by foot”, whatever...-, (...) it satisfied the financial directors of each country, who were able to report the accounts of each independent company. So, there was no one asking for that uniformisation [at IndCo’s level]. There was no one. (...) There was not a single person requiring that. Not a single one [emphasis].”

Another member of the SAP FI implementation team further elaborated on how the lack of strategic guidance contributed to allow certain “conditions of possibility” through the system configuration (in this case, it allowed independent charts of accounts) and, ultimately, to privilege requests from local actors:

“If, from the start, there was commitment and information (...) towards that direction [of global analyses, benchmarking], then there wouldn’t have

been the opportunity to create that flexibility, or that range of various possibilities in the charts of accounts. [But] because that specific order [to impose a single chart of accounts] did not exist, it was assumed that [a flexible approach] was also within existing directives (...) [Due to the lack of directives], many requests [of ISs development] were more adapted to the local powers. That is a reality. (...) Meeting the needs of local financial directives was imperative. Anything above that, was a surplus.

Therefore, the above insights suggest that the mobilisation attempts by IndCo's central actors of the accounting and finance area were, at best, incipient, and the outcomes were indeed influenced by this initial *absence* of such mobilisation attempts.

Additionally, SAP's initial configuration cannot be attributed to strategies from local actors, either, as a hypothetical strategy to preserve previous autonomies and power. It is true that local actors from the accounting and finance area requested to preserve their capability to continue producing the locally required reports, as the above quotes demonstrate; but the research insights do not allow concluding that such requests were active strategies to mobilise SAP FI in a way to preserve previous autonomies and power.

Restricting the analysis to a short period around the start of the SAP FI project, this lack of influence from central actors of the accounting and finance area made way for a more successful mobilisation of SAP FI by the IT Department, to pursue its strategy of systems unification. The absence of a clear and determined attempt by central actors of accounting and finance to mobilise SAP FI to enhance their central visibility and intervention capabilities had a consequence: it reduced the incentives of the project team and the IT Department to include such features in SAP FI. Such features would imply new, more complex and riskier technical options. Should a single production server centralise all the data of all countries, a communication failure would

imply serious consequences – and communication failure risks were perceived as relevant as regards one of the three countries involved. In addition, adopting parallel accounting appeared to be more complex than adopting totally independent charts of accounts and, in particular, a more radical change throughout the organisation (indeed, the desire to avoid or at least postpone wide-reaching changes are further documented below in this subsection). Therefore, the project team and the IT Department did not implement them.

As a consequence of the above, in spite of the IT Department long established strategy of moving towards single information systems, the initial features in SAP FI configuration did preserve some local autonomy and powers. But these outcomes resulted more from the pursuance of lower risk strategies by the IT Department (given the absence of clear mobilisation attempts by accounting and finance central actors towards uniform approaches), rather than from purposeful mobilisation attempts by local actors. And these IT lower risk strategies led to options which preserved and emulated past arrangements – even though the strategic objective of preserving past arrangements, in itself, did not exist, as suggested by a longer term analysis, presented next.

6.1.6.2 SAP FI initial configuration as a result of strategically-phased mobilisation efforts?

Considering a larger time span than the one considered in the previous analysis provides a different perspective, since it highlights strategically-phased mobilisation efforts by central actors of the accounting and finance area. Based on insights provided by other respondents, the researcher confronted a CC manager with the suggestion that

the initial SAP FI configuration (unarticulated and locally modifiable charts of accounts in local servers at a country level)...

Researcher: *“...was a solution which introduced a minor rupture with the previous situation. The autonomy that each [country] had to open accounts (...) remained preserved for some time”*

Although the respondent acknowledged the factual accuracy of the researcher’s statement, he then countered that keeping the *status quo* was “not (...) purposeful [i.e., intended]” (see above). In addition, he reflected that...

“We need to ponder, the desirable and the feasible. And when we are at the stage of creating a corporate team, it was at least excessively ambitious... (...) With a team like this, with so little experience, with so little business knowledge, implementing a completely distinct logic would be impossible. So, the option was basically ‘For now, let’s introduce a single system, and then, when things start to... (...) There were no conditions for such a type of strategy [implying ruptures].”

This recognition of the impossibility, at that initial stage, to introduce “a completely distinct logic” relies on the balance between what is “desirable” and what is “feasible”. At this initial stage, lack of knowledge about available design options and their possible consequences was an important restriction. This insufficient knowledge and hence poor judgement led to a random choice, i.e., a misguided, insufficiently reflected choice: adopting unarticulated and locally modifiable charts of accounts in local servers at a country level. This inadvertently mobilised the package in a way which did not support central actors’ objectives.

A CC manager argued that such configuration, being adverse to the “desirable” outcomes, ...

“... was clearly a random solution, I have no doubts, and probably due to our lack of experience at the start”. “We were not aware from the start (also because we had few resources) that having decentralised servers would allow [local] people to make changes. A local server administrator can make changes.”

Importantly, this account, provided by a central actor, relies on the assumption that there were indeed clear objectives to be achieved. As such, only a “random” evaluation and decision justifies the adoption of choices which led to unintended and undesired consequences, not aligned with those objectives. Indeed, the same CC manager reaffirmed (as quoted above) that...

“... the idea, from the start, was to uniform and standardise, to allow closing the books faster. You can only achieve that with a single chart of accounts.”

In fact, the same IT member who stated (quote above in this subsection) that “[i]f there was [a strategy for an integrated SAP FI], it wasn’t conveyed [to the implementation team] and it wasn’t carried out.”, also added, later in the same interview:

“Based on the indications we were given, we thought that we could not design a model which would suit exclusively Portugal. The only thing that was not created from the start was the common chart of accounts. All the rest was thought in a common way: the structures, the size [number of characters] of the accounts was the same for Portugal and [the two other countries]. The same as regards cost centres and [internal] orders. Everything was designed equal.”

These accounts suggest a *pragmatic multiple-stage plan*, matching the restrictions of available resources with the (still emerging) ambitions of advancing towards uniformity and introducing radical ruptures. The introduction of a single system was considered to be a first, easier and faster move which could later potentiate further

developments, as the following quotes from a consultant and the same CC manager, respectively, make clear.

“The project was not meant to rethink the way to organise the corporate centre, or the countries’ administrative structures. It wasn’t. It was to implement a system, which was SAP, and the FI module”

“Regardless of immediately implementing the model you’d prefer or not, one thing is to do things leaving open the possibility of making changes in the future. Another thing is to do a model that, if you want to make changes, you have to throw it away and do it again.”¹⁸

Finally, a senior manager provided similar insights, but added a new perspective: following a satisficing approach to reduce resistance to change (see extended quotation #2, in the Appendix). Although this respondent did not have a detailed knowledge of this particular project, his views corroborated the lack of a detailed analysis by top management of a project such as this (related to financial accounting), leaving its design mostly to members of the accounting area (as expressed by other respondents, above). He also rejected the notion that there might be, at a high hierarchical level, the strategic objective of maintaining, in the long run, the existing decentralised model. Additionally, and significantly, he emphasised the importance of a *satisficing* approach (Cyert and March, 1963; March, 1987) as regards non-essential issues, in particular when considering the potential resistance against the change or destruction of previous references, of symbolic features which might provide a sense of identity.

Therefore, the *efforts of central actors* from the accounting and finance area to mobilise SAP FI should be viewed in a *temporal perspective*, in *two stages*. The *first*

¹⁸ A consultant provided a clear example: IndCo’s actors immediately rejected the introduction of the SAP Profitability Analysis solution, at that initial stage, for two reasons. First, it did not fit the limited project scope and resources. Second, it would probably have to be abandoned and completely redone, should IndCo pursue the implementation of additional modules, particularly in the logistic area – a scenario which was not yet planned, but soon emerged after the adoption of SAP FI.

stage corresponded to a fast, ‘plain vanilla’ project, of a ‘mere’ introduction of a single financial accounting system in three countries. During a first stage, the project was mostly driven by the IT Department, only subject to high-level, broad impositions that the new solution would have to interface with the group-wide consolidation solution, Hyperion. Given time and human resources restrictions, a ‘minimalist’ intervention from central actors from the accounting and finance area conceded the adoption of options which were not fully aligned with their objectives. Importantly, those very objectives were still on the process of emerging, and at an initial stage there might be more a broad vision and ambitions for the future, rather than concrete objectives. In fact, this emergent nature of the formation of objectives was tightly related with the only gradual and initial emergence of the Corporate Centre in Portugal (an organisational innovation analysed in the next section)¹⁹.

Therefore, a coincidence occurred. Orientations and decisions from the IT Department (a previous strategic option in favour of integrated systems, a centralisation of IT formal power and resources in Portugal and the definition of one single project team) were supportive of longer term (yet basically still unstated) objectives of central actors of the accounting and finance area, since it led to development of one single, common model. Therefore, central actors only ensured, at this first stage, *more by monitoring than by active intervention*, that the model could accommodate potential

¹⁹ A quotation of a CC manager about the gradual emergence of the CC is anticipated here to reinforce the notion that objectives in accounting and finance, as well as the actors themselves, were still emerging: “The transfer [of the Corporate Centre to Portugal] was done only gradually. It was necessary to recruit people, we started by management control, it was all that process (...). To recruit one or two people to treasury and finance area, to start working on centralisation solutions, as far as possible ... Or, at least, first get the data and then talk to the banks to see what could be done in terms of solutions for financial centralisation and coordination. (...) Naturally, things started growing, developing, gaining their own body... And then things came a little by... (...) The logic was to have, in this team, the essential competences to start creating an infrastructure to allow the required business monitoring.”

future changes conducive to their longer terms objectives, when their attainment became feasible.

At later stages, however, central actors gradually promoted the development of SAP FI in ways which were more supportive of uniformity and central visibility across the organisation. In particular, the shift to a single server and the adoption of parallel accounting were done soon after the divergence between charts of accounts was detected, and at a time when the CC in Portugal was already fully operative.

Interestingly, the trigger of this change process was a technical factor derived from implementing the logistic modules, i.e., from developments beyond the accounting area. Multiple charts of accounts in SAP FI made linking the logistic and financial modules rather complicated (see quote in page 402). The short time period elapsed between the detection of the ‘problem’ and the reconfiguration of SAP FI architecture (the remobilisation of the package) prevents an interpretation of any substantial change in terms of central actors’ objectives or available resources. However, these shifts, even if triggered by technical reasons related to the implementation of the logistic modules, represent an enactment (and therefore a clarification to all actors) of the objectives towards uniformity and centralisation - which, until then, might have been less clearly assumed or less well perceived within the organisation.

A consultant provided an extensive, very rich and insightful description of this later stage, when key central actors enacted objectives which until then were not explicit or not even fully developed. He emphasised the...

“...very strong [project support] from [Mr. A], very forward-thinking, avid of centralisation and modernisation (...), who many times even wished we [consultants] were bolder.”

“[His incentives were particularly in terms of] speed. Many times, we proposed certain things, and he looked at us and asked ‘Why hasn’t that been done yet?’. And we looked at him ‘Sir, you have to approve, first’. ‘Consider it approved’. It was his very unique style. (...) In terms of decisions and organisational changes (...); when we left, he created the conditions for it to happen, wrote the internal memos, communicated to the people... It was a (...) young and dynamic way to conduct the meetings, to incentivise and entice us. (...) His ‘Yes’ meant ‘It should have already been done’. That’s why he had arranged that meeting. (...)”

Reinforcing the notion of an initial lack of an explicit and clear strategy for the accounting and finance area, the consultant clearly identified the role of the SAP technical innovation and the consultants themselves as facilitative and legitimising of previously unstated and unfulfilled objectives.

“For example, when we started the project, the [objective of] organisational change and the centralisation of functions was not transparent. When the processes were aligned, specially as regards the treasury component, it was visible to everyone that there were enormous synergies to centralise the payments and treasury components. And so we recommended that organisational change. And automatically, he looked at us and said ‘Of course, move on, that should have already been made’, in the sense that he himself had tried to do it in the past but due to constraints in the systems, he hadn’t managed to do it. Or because, perhaps, he thought that for reasons related to people management, career development expectations, etc., he thought it wasn’t the right time.

So, he took the system change, to say ‘If you gentlemen say that it is fundamental, then who am I to say the opposite? I even think that should be already done’. And that’s an excellent argument for us to do it immediately. And so, things were accelerated that way.”

Going beyond the particular case of IndCo, this consultant further argued that SAP is often used as both a facilitative device and a legitimating support to other previously existing objectives, in line with existing literature (e.g., Dillard *et al.*, 2005; Scapens and Jazayeri, 2003). In particular, the perceived legitimacy of this ‘modern’

technical device may be useful for particular actors to justify options of an organisational nature which they expect to face opposition by other organisational actors.

“There’s an issue, which I hope you won’t write²⁰, but it’s fundamental. The issue of organisational change is often attributed to SAP, but sometimes there are old plans and ambitions that companies have had for a very long time, and they blame certain decisions on SAP. And they are not, they are decisions of an organisational nature.

‘Oh, it’s because of SAP that we have to centralise this, and certain people will no longer be needed.’ Lies. In SAP, it’s far easier to do it like this, in fact, because it frees up functions. It was more difficult, but we could keep the old functions and the old [work] systems. But, actually, people say ‘Since we needed to do that, don’t know when, and if we make the [new SAP] system like [the current system], then we’ll have to make a rework later. Then, let’s put it all together, and we solve the problem immediately’. Then, SAP is to blame”.

This extensive quote is a particularly vivid example of insights provided by other interviewees. At a certain stage, after an initial lack of strategic orientation and guidance, key central actors started actively orienting the project to mobilise the SAP FI package in order to support organisational changes that were now explicitly desired.

6.1.7 SAP FI BECOMING AN ‘OBLIGATORY PASSAGE POINT’

The process through which SAP FI (and, indeed, the other innovations analysed in this chapter) became an Obligatory Passage Point (OPP) is explored in greater detail in the next chapter. But before such wider analysis, it can be noted that, at a more immediate level, SAP FI started becoming established as a passage point in each of the sites where it was implemented, since no other tool existed to carry out many financial

²⁰ The researcher obtained written authorisation from the interviewee to include this quote.

accounting tasks²¹. Importantly, after the remobilisation of SAP, it started ‘routing’ all local actors through the same path, through the same standardised processes.

However, the *effectiveness* of SAP FI as an OPP, as routing all local actors through the same path in order to produce uniform, comparable financial accounting information, was not total. Additional *innovations were crucial at later stages* – in particular, the organisational innovations of relocating the *Corporate Centre* and creating a *Shared Service Centre* in Portugal, near the chairman and majority shareholder, Mr. A. These two organisational innovations (and the SSC in particular) contributed, alongside SAP FI and other innovations, to build a network of “Obligatory Passage Points”, which collectively were clearly supportive of central actors’ interests.

This discussion about how SAP FI affected IndCo’s circuits of power, in particular at the level of system integration, has already started to be addressed in the text above. However, a more thorough discussion about how SAP FI became a fixed OPP within a larger network of other OPPs in IndCo, constituting a technical, material condition which promoted the interests of central actors, is postponed to the next chapter.

6.1.8 SUMMARY AND CONCLUSIONS

This section focused on the first of the three major innovations introduced in IndCo to be analysed in this chapter: the implementation of the financial accounting module of SAP, SAP FI. In particular, this section explored various stages of decision,

²¹ As an exception, in one country where SAP FI was implemented, the subsidiary had to keep using a prior local solution to perform various activities, such as producing tax reports, due to a number of specificities not supported by the standard SAP package (and which were also not fully known by the IT team).

design and implementation processes, as well as identifying the actors involved in those stages and scrutinising their motivations and strategies.

This section proposed conceiving the design and implementation of SAP FI as mobilisation attempts of a generic software package by various actors. Depending on the mobilisation attempts at each stage of the process, and on the success of those attempts, the package was configured in certain ways, rather than in other alternatives.

More specifically, this section identified a first stage when particular influences over the mobilisation of SAP FI promoted the adoption of characteristics promoting uniformity and central visibility, while other influences promoted the accommodation of previous diversity and autonomy features. Particular influences at this first stage were originated from organisation-level and group-level actors; other influences were traced to non-human actors, such as the group-level consolidation solution Hyperion. However, a closer analysis revealed that the influence of non-human actors was importantly mediated through organisation- and group-level actors and the rules which they produced and the remaining actors accepted and enacted. At a second stage, after the system went live, additional mobilisation moves were identified to reinforce the promotion of uniformity and central visibility.

Analysing the identified mobilisation moves along the various stages of the design and implementation process, this section then discussed alternative perceptions about the role and strategies of the accounting and finance area. One perception argued for its initial lack of strategy and mobilisation efforts. However, taking a longer term perspective, alternative perceptions highlighted a more strategic stance. Key actors evaluated and confronted emerging objectives and (limited) available resources, as well

as the on-going configuration of the package, to strategically determine the mobilisation attempts to be enacted at each stage of the process.

However, this section acknowledged that more empirical information and additional conceptual developments were needed to draw a more comprehensive account of this technical and associated organisational change process. In particular, the development of SAP FI and its establishment as an “Obligatory Passage Point” was related with additional organisational innovations, such as the relocation of the CC to Portugal and, in particular, the creation, also in Portugal, of a SSC. The empirical description and analysis of these two innovations are the focus of the next two sections, and are essential to the understanding of the SAP FI implementation processes in IndCo.

6.2 AN ORGANISATIONAL INNOVATION: THE RELOCATION OF THE CORPORATE CENTRE TO PORTUGAL

This section analyses an organisational change which started being implemented in 1998: the relocation of IndCo’s Corporate Centre (CC) (along with IndCo’s top managers) from Spain back to Portugal. Significantly, this shift brought IndCo’s CC and top managers back to the same location of Mr. A, IndCo’s chairman and majority shareholder. The change in location represented a change within IndCo’s actor-network, in the relative position and centrality of components (actors) of the network, in the relations established among the network components. Therefore, although a CC already existed in Spain, the change in location is conceived as an innovation within the actor-network, at the level of the circuit of *system* integration. This section explores the empirical insights about the motivations, process and consequences related with this

organisational innovation, and it notes that all circuits of power must be considered to fully understand this change.

The first subsection addresses the motivations for this innovation, analysing how existing organisational and technological arrangements and local rules created a number of limitations to key central actors, and Mr. A in particular. The subsection also analyses how the innovation attempted to address these limitations. The second subsection briefly summarises the process of the CC relocation. The third subsection analyses some consequences for IndCo's actor-network – and preliminarily indicates expected changes in IndCo's circuits of power. The fourth subsection describes the persistence of perceived limitations of the introduced innovations (SAP FI and the CC), and the emergence of the idea to introduce an additional organisational innovation: a Shared Services Centre. A summary closes the section.

6.2.1 THE MOTIVATIONS TO RELOCATE THE CORPORATE CENTRE

6.2.1.1 Limitations of central actors due to adverse top management structure and mechanisms: the circuit of system integration

As described in the previous chapter, after the acquisition of a large Spanish competitor in the early 1990's, IndCo's top managers and the CC moved from Portugal to Spain – with the notable exception of the chairman and majority shareholder, Mr. A, who always remained in Portugal, *where the CC of IndCo's group was also located*.

Therefore, top management became increasingly split between Portugal and Madrid. Portugal was the location of the chairman (who, throughout all the company history, always had a *de facto* executive intervention) and of the CC of the holding

group. On the other hand, Madrid was the location of the top managers (including the CEO) and of IndCo's CC (based on the CC of the acquired Spanish competitor).

Several interviewees emphasised the importance of Portuguese key directors who, although based in Spain, kept a close relationship with Mr. A during this period, until 1998. These directors – in particular, the Portuguese CEOs - had a long history in IndCo or in IndCo's group, and interviewees always described them as “people of Mr. A's trust”. Significantly, a senior manager made the point to clarify that, to Mr. A, the kind of relevant trust is “professional trust”, based on their capabilities and honesty, rather than “personal trust”, based on an unquestioning submission to Mr. A.

In order to preserve Mr. A's knowledge, intervention and control, he strongly relied on such key people – the CEOs and other directors in whom Mr. A trusted. This “people-based” approach at a high hierarchical level was particularly needed, given the shortcomings of available information, particularly the type of information oriented towards the needs of central actors, requiring a global visibility over the organisation.²²

Therefore, Mr. A had to rely in ‘trust-in-persons’ at a higher hierarchical level. This was particularly important given the more generalised limitations arising from rules of meaning and membership at a local level, emphasising local level issues (which prevented a more generalised ‘trust-in-persons’) and to a lack of ‘trust-in-systems’, as analysed in subsection 5.4.5. “Trust in abstract systems involves faith in the correctness

²² Recalling a quotation from a CC manager (subsection 5.4.1, page 329) is useful: “[In terms of formal and ultimate decision power], the decision power was in [Portuguese city where the group holding - and Mr. A's office - was located]. [However,] de facto, [the decision power] was in Madrid, because [the Portuguese city, i.e., Mr. A and staff located there] could only provide an indication but, in practice, it didn't have the minimal conditions and means to make an adequate follow-up, in order to verify if the defined indications and strategies were actually being followed, at the desired speed, at the desired timings, in the desired ways. It didn't have the slightest chance to ensure that.”.

of the principles within the system, not the good intentions of others (trust-in-persons)” (Moilanen, 2008, p. 254; see also Seal and Herbert, 2009, both based in Giddens). As a CC manager reflected,

“Follow-up [by Mr. A] (...) was much more based on a relation of personal trust between – let’s put names on this – Mr. A and, in Spain, [Mr. X], rather than in an organised system working more or less independently from people A, B, C or D occupying whatever function.”

However, as an IT member recalled, in spite of Mr. A’s reliance in these key people, during this period,

“[One of the CEOs] started defining a certain distance: (...) the shareholder (...) intervenes in strategic issues, but not in daily management.”

This distancing of Mr. A from some decision making instances was at odds with his known preferences. As a senior manager described it,

“Mr. A likes intervening, and it’s evident that if IndCo’s Corporate Centre is in Madrid, his capacity to intervene is more limited.”

However, in 1998, the last of these CEOs left the group, as well as other senior group advisors. For the CEO position, Mr. A appointed a Hispanic, a former partner of a large consultancy firm, who had recently joined the group. Although a senior manager rejected the notion that Mr. A might trust this new CEO less than previous ones, all other interviewees clearly identified a distinction. In the direct continuation of the last quote, the senior manager confronted the significant difference in the length and trust of the relations between Mr. A and the new, Hispanic CEO, when compared to previous CEOs.

“We also have to consider the type of people, right? [Before 1998,] IndCo’s CEOs alternated between [Mr. X, Mr. Y and Mr. Z]. All Mr. A’s trusted people, who had been in the group for many years. [The new Hispanic CEO] was a recent arrival.”

Another senior manager characterised the appointment of this CEO as...

“an emergency solution, while Mr. A prepared a longer term strategy. And this CEO was very supported and monitored until he proved himself” (approximate quotation)

The account in this subsection closely mirrors the two stages of trust relationships, as proposed by Tomkins (2001) and supported by Johansson and Baldvinsdottir (2003). As regards the long-trusted people who previously took key positions, Mr. A accepted “incompleteness of information” in this “trusting relation” (Johansson and Baldvinsdottir, 2003 p. 222). However, the trust relationship with the new CEO was still in its infancy, since “trust is grounded in learning from experience” (p. 222). However, there was no adequate information to support such learning processes, required at the early stages of trust relationships.

Therefore, Mr. A was confronted with the anticipation of the departure of long-trusted key members and the limited ISs addressing his organisation-wide information needs. When compared with the evaluation made in subsection 5.4.5, the departure of these individuals further reduced Mr. A’s confidence of receiving accurate information about IndCo as a whole (as regards the disembedding process) and his capacity to effectively intervene (as regards the reembedding process) (Moilanen, 2008, drawing on Giddens, 1990). On a more cautionary note, a CC manager stated that...

“because possibly it was already being anticipated that (...) the people, say, closer to the group, would be leaving Spain and the group itself, the more

important it would become to exist a more solid structure here. It's mere speculation, but looking backwards... [so it seems]".

This concern was aggravated because IndCo was not only increasingly larger, but was also increasingly centred in Spain. Although the Spanish company was acquired by IndCo (and it was always, ultimately, owned by Mr. A), it later became the owner of most of IndCo's assets, both in Portugal and internationally. The increasing importance of Spain was further bolstered because the large acquisition in the late 1990's was carried out by the Spanish subsidiary. As an IT respondent described with some humour,

[The corporate centre had] "increasingly more power, the "head" was growing in Madrid, in areas such as finance, controlling, even ISs, several corporate areas. And there was a moment when some discomfort emerged among the Portuguese, who were IndCo's "oldies", [because] the power was escaping to Madrid. And that's when there was an intervention of Mr. A, because things started escaping his reach, in the finance area and in the controlling area"

Interviewees were unanimous in attributing to Mr. A the initiative for this process of relocating IndCo's CC back to Portugal, in the same site of the group CC and therefore near Mr. A himself. The following quote from a CC manager is illustrative.

"There was a decision of the shareholder to create again, closer to the headquarters, a corporate centre which allowed a better monitoring of the information."

Significantly, among those interviewees with whom this topic was discussed in more detail, they all converged in their perception of "proximity" to Mr. A (or to the group headquarters²³) as the driver behind this shift. "Proximity (...) to allow a better

²³ The interviewees often mentioned "Mr. A" and "group headquarters" interchangeably, reflecting not only the same geographical location but also, and significantly, reflecting a high degree of perceived alignment between both actors.

monitoring of the information” was clearly the perceived overriding motivation. In contrast, the conclusion (or at least the advanced stage) of the Spanish company integration (one of the reported justifications for the move of the CC and top managers to Spain after the acquisition), was typically not depicted as a relevant motivation.

The *location* of organisational structures, and hence of the location where their activities are performed, was therefore not inconsequential as regards power issues, because it changed the relative positions and proximities within the actor-network. The change in location made top managers and the CC become closer to Mr. A and the group headquarters, and that increased the influence of the latter over the former. Therefore, from a research point of view, there may be the need to consider both the *existence* and the *location* of the relevant structures and innovations, whenever location affects relations from an actor-network perspective. This may apply to both human and non-human actors - e.g., the previous section also highlighted the repercussions of the locations of SAP FI databases, since this affected the socio-technical relations within the network.

The analysis above focused on elements which Clegg (1989) included in the circuit of system integration. Organisational structures (alongside techniques, such as information systems) are part of the material conditions which influence the way power is distributed across actors or, putting it in another perspective, influence the way power is attributed to, or withheld from, actors in the organisational network. Therefore, tensions and actors’ dissatisfaction with prevailing organisational structures (and information systems), as reflected in Mr. A’s combined lack of trust-in-systems and trust-in-persons (Giddens, 1990; Moilanen, 2008) can therefore be a particularly important motivation for organisational change – including changes at the very same

circuit of system integration. In brief, some components of the circuit of system integration were not supportive of central actors' and, in particular, of Mr. A's interests, and have motivated this organisational innovation. A second type of motivations was related with the circuit of social integration, which is now considered.

6.2.1.2 Limitations of central actors due to adverse rules: the circuit of social integration

The difficulties of central actors, and of Mr. A in particular, were aggravated by prevailing rules in IndCo - some long standing, others more recent and emerging. At a local level, prevailing *rules of practice*, including rules of meaning and membership (Clegg, 1989; Ribeiro, 2003; see section 3.5), largely reflected local problems, from a local perspective (as analysed in the previous chapter and particularly in subsection 5.4.3). Some problems experienced by central actors were not a major concern at a local level – as a reflection of rules of membership oriented towards *local* membership. This particular configuration of the circuits of social integration, regarding the rules which were actually accepted and enacted by actors, was simultaneously caused and reinforced by the high autonomy of local sites. In turn, both characteristics (a local focus and autonomy) can be partly attributed to IndCo's history of growth by acquisitions.

Longstanding, prevalent heterogeneity of rules accepted and enacted across the sites, and their misalignment as regards central actors' objectives, represented an increasing concern to central actors, in particular as IndCo continued to grow. As a CC manager stated,

“an emphasis was placed in the need to start having a stronger corporate team here and to start implementing common methodologies and systems.”

“Methodologies” referred basically to extant ‘rules of practice’, rules *de facto* enacted by local actors across the sites. Therefore, an important motivation for the creation of the CC was the gradual introduction (and ultimate enactment) of new rules, as well as increasing the *actual* acceptance and enactment of some extant formal rules which were not accepted and enacted by local actors across the sites (at least, not in a degree acceptable to central actors). However, as further discussed below, this change would require integrated contributions from additional actors (in particular, SAP FI and the SSC).

In addition to long standing rules, an emerging perception about the location of the organisational centre was an additional component of the circuit of social integration which played against Mr. A and other central actors located in Portugal. As described in this subsection, the increasing transfer of organisational resources to the Spanish subsidiary promoted the perception that the organisational centre was, indeed, Spain. This perception affected rules of membership, further reducing the importance of *Portuguese* ‘central’ actors. Before this perception emerged, some rules of membership were already previously oriented towards the local (rather than central) level; this emergent perception promoted that rules of membership became *even less* oriented towards *Portuguese* central actors – which now had a *less central* position within the network. Therefore, the new location of the CC, in Portugal, also intended to have a symbolic meaning, as a senior manager reflected:

“[The Corporate Centre relocation is above all justified] from the shareholder point of view. ‘I am a Portuguese company, I don’t want to be a Spanish company, and therefore I don’t want my decision centre in Spain, I want my decision centre in Portugal.’ (...) The rest, the concept [underlying the Corporate Centre] was exactly the same.”

6.2.1.3 A summary of motivations

By 1998, Mr. A was confronted with a number of adverse situations, at the level of both the circuits of system integration and the circuits of social integration.

As regards the circuit of system integration, top managers, and the entire CC, were geographically distant from him, which limited, in practical terms, his active intervention in the business - something which did not meet his personal managerial style. Key top managers, who were his trusted link and support, were leaving the organisation. Formal information channels were weak, given the limitations of existing information systems to provide a reliable central visibility over the entire group. The weakness of these formal, ISs-based communication channels, became even more critical for Mr. A given the departure of those key managers, which supported the existing people-based (rather than ISs-based) communication channels. Therefore, perceived, combined problems of lack of ‘trust-in-persons’ and ‘trust-in-systems’ emerged (Giddens, 1990; Moilanen, 2008).

As regards the circuit of social integration, long-standing prevailing rules of practice at a local level privileged local concerns and priorities, attributing a low priority to the needs of central actors. And the recent shift of organisational resources and functions to the Spanish subsidiary had promoted an emergent perception that the organisational centre was in Spain, rather than in Portugal – further orienting prevalent rules of membership *away from Portuguese* ‘central’ actors.

As a result of the above adverse features at the circuits of social and system integration, Mr. A was confronted with structural practical power limitations –

limitations not in line with his uncontested formal power over the entire organisation, at the level of the circuit of episodic power. In line with one of the main conclusions of the previous chapter, it was clear that there was an unbalanced situation between the circuit of episodic power (where Mr. A had ultimate and undisputed formal power and control over resources) and the power flowing in the circuits of social and system integration (where he experienced structural, practical power limitations). Addressing these structural limitations was among the motivations to relocate the CC from Spain to Portugal, in a process which is analysed next.

6.2.2 THE PROCESS OF THE CORPORATE CENTRE RELOCATION

In early 1998, Mr. A triggered this process of relocation of IndCo's CC back to Portugal - to the same site of the group CC and therefore near Mr. A himself. It was, clearly, a process supported by Mr. A's control over organisational resources. In the terms of Clegg's model, Mr. A's dominance at the *episodic* level of the circuits of power was, clearly, decisive.

However, even with the support of Mr. A and his control over resources, the process of restoring the CC in Portugal – i.e., the introduction of an organisational innovation at the level of the circuit of system integration - was a slow and gradual one. In fact, before this change, IndCo's CC in Portugal was virtually non-existent (only one person, half-time).

As a project virtually “from scratch”, the choice of the person responsible for it was critical, since the roots of virtually all future aspects of the CC were then being conceived and designed. The manager appointed to lead this process was described by

an IT interviewee as “a person already with a history at IndCo”, as one of those managers Mr. A trusted.²⁴

To staff the management control area and the treasury and finance area, external recruitment and selection processes were carried out. As regards the consolidation area, three members of the group consolidation team were transferred to IndCo. As a CC manager explained,

“the logic was to have, in this team, the essential competences to start creating an infrastructure to allow for the required business monitoring.”

This quote very clearly reveals the *gradual* nature of this process and of its very ambitions. At the start, the newly-hired team of recent graduates was indeed reduced and lacked experience. With such human resources limitations, the *very short term ambitions* were also *limited*. However, it aimed to gradually create an organisational structure aligned with the objectives of the central actors (in particular, Mr. A) to achieve greater business visibility – which, in turn, would enhance the business control and intervention those central actors felt to be lacking.

Additional factors promoted the *only gradual emergence* of the CC. Further hiring processes and logistic developments were needed. The learning process of the newly hired staff was, obviously, also gradual. Finally, an important support was only then emerging: an information system promising to centralise some financial information from across the organisation in a quick and reliable way, SAP FI. The

²⁴ Reinforcing the notion that important power issues were at stake in this process, the same interviewee soon afterwards added that that manager “lived intensely those power issues”. This manager was interviewed three times.

following figure 6.1 sketches the SAP FI and the CC timelines and highlights the close temporal association between both innovations.

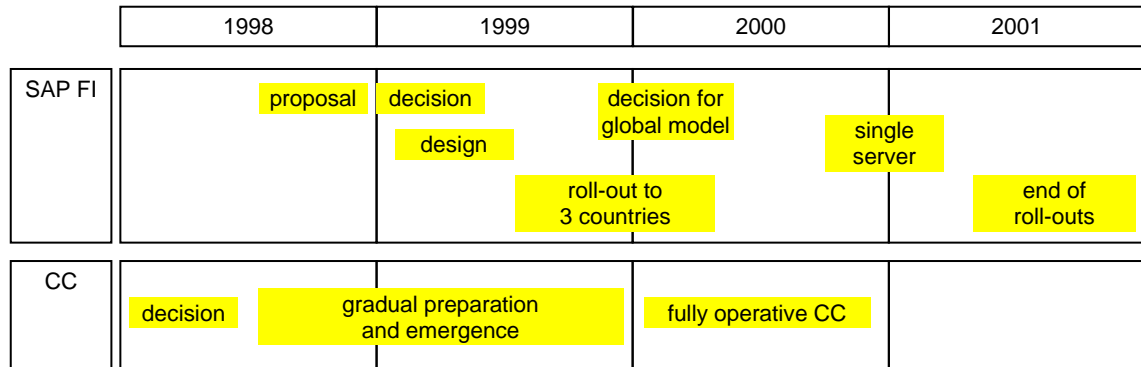


Figure 6.1: Chronology of the SAP FI project and the CC (Source: Developed by the author)

SAP FI promised to greatly facilitate central actors' central, global visibility, as it was *gradually* rolled-out (and only by 2001 did it encompass all countries, except one). However, the implemented SAP system had two limitations to attain this visibility. First, as explored in the previous section, some initial design choices did not favour this central, global visibility: only after an additional mobilisation of SAP by central actors, was SAP redesigned, facilitating this visibility. The second limitation concerned the type of information processed by SAP FI. SAP FI only concerns *financial accounting* – hence, providing limited support to management control. Several types of information were not included in SAP, among which information for management control. Management control by the CC had to continue to rely on information produced at a plant level and then transferred to the CC – and which, as argued in subsection 5.3.3, was perceived to suffer from lack of reliability, consistency and timeliness.²⁵

²⁵ This perceived limitation of visibility for central management control extended for several years beyond the adoption of SAP FI. As mentioned at the start of this chapter, the project to design and implement the SAP modules to include cost accounting and management control information only started in 2005, finishing in 2007.

Therefore, the potential visibility and intervention capability of the new organisational structure (the CC) was initially compromised by the early stage of development of supporting integrated systems. Interestingly, empirical insights from the previous section on SAP also indicated scarcity of resources (such as the ones provided by a CC) as limiting factors preventing the choice of a “*completely distinct logic*”, of more “radical” departures from prevailing arrangements.

As a conclusion, the kind of interdependency between these two material conditions (SAP FI and the CC) varied according to their development stage. Initially, the embryonic state of each of them limited the possibilities of development of the other; later, as each innovation matured, that mutual dependency became a mutual reinforcement, as developed in the next chapter.

The creation and gradual expansion of the CC created new organisational actors, both individual and collective. As the years passed, the CC in Portugal created new areas of intervention. At the time of the fieldwork, the CC included the areas of management control, corporate finance and treasury, legal, human resources, environment and eco-efficiency, and industrial benchmarking. The next subsection now analyses how the emergence of the first *new organisational actors* of the CC (related to finance, accounting and management control) affected IndCo’s actor-network and could be *expected* to change IndCo’s circuits of power.

6.2.3 CONSEQUENCES OF THE CC ON INDCo'S ACTOR-NETWORK – AND EXPECTED CHANGES IN INDCo'S CIRCUITS OF POWER

The relocation of the CC to Portugal may also be described as the *creation* of a new CC in Portugal. Indeed, this innovation was *not a mere* geographical shift of the previous CC; its members did not remain the same and were not simply moved from one country to another. On the contrary, the CC was built virtually from scratch. As described, there were external recruitment and selection processes to staff the areas of management control and of finance and treasury, while others were transferred from the group's consolidation team (located in Portugal).

Therefore, the conditions in which the CC emerged *promoted a rupture* and a very clear *endorsement of a central perspective aligned with Portuguese central actors*, for four main reasons. First, the new organisational structure was created as a direct consequence of a decision of the chairman and majority shareholder and it was located near him and the group headquarters. It gradually, but clearly, replaced the previous control structure of the Spanish CC; although the concept of a CC was the same, it radically signalled a shift in the organisational centre, identity and power perceptions – IndCo was a Portuguese company, and owned by Mr. A. As a preliminary remark, this context in which the CC was created, as a clear initiative of Mr. A, promoted that the CC and its members would be aligned with these central actors and would endorse a central perspective.

The second promoter of a central, organisation-wide perspective can be related with the very nature, objectives and scope of the activities of a CC, which a stream of research on organisational culture has associated with certain characteristics. Subject to

important caveats²⁶, Hofstede's (1998) empirical work and the resulting typology of organisational cultures are now used to provide broad indications. It may provide suggestions of perspectives and values, of "psychological dispositions (...) of (...) organisational members" (Ahrens & Mollona, 2007, p. 307) which, in a "functional conception of organisation" (p. 307), may be typically associated with certain types of activities within organisations. Hofstede's conclusions supported the intuitive notion that different functional activities and objectives may be related with different dispositions, perspectives and values. Hofstede characterised, necessarily with a broad brush, three typical subcultures (professional, administrative and customer interface), using six "dimensions". These subculture types are briefly reviewed and related with the differences analysed across IndCo, in particular between local and central actors.

The two types of subcultures Hofstede found to be the least different can be associated with the various levels and types of activities of actors of a CC. First, the labelled '*professional*' culture is associated with non-routine and difficult tasks, performed by skilled personnel. Hofstede identified this culture among management (and top management in particular), central departments and other specialised employees. The associated tasks include the more conceptual and non-routine activities of the CC (e.g., related with strategy control), and also complex tasks of a more operative nature (e.g., complex consolidation operations). Second, the labelled

²⁶ It should be emphasised that Hofstede's work and conclusions should be used with caution in any particular case study. No claim can be made, and no claim is made in this thesis, that the characterisation of a given organisational area, in a particular organisation, corresponds to Hofstede's typology. The characterisation must always rely on the interpretation of empirical insights. Hofstede's typology is used, in this specific part of the work, merely as a comparative characterisation. The ontological, epistemological and methodological assumptions and approaches of Hofstede's work and the current thesis are substantially different. The discussions between, on one hand, Hofstede (2002 and 2003) and, on the other hand, Baskerville (2003), Baskerville-Morley (2005) and McSweeney (2002a and 2002b) are elucidative of such differences; see also Williamson (2002) (these discussions do not refer to Hofstede's, 1998 work on organisational cultures, but rather to Hofstede's, 1980 work on national cultures; however, many ontological, epistemological and methodological issues raised in the mentioned discussions apply to both works). Therefore, no conclusions are drawn based on this particular part of the analysis, based on Hofstede's typology.

‘*administrative*’ culture is associated with routine production processes and standardised work. These tasks can describe the more operative and routine activities of the CC (e.g., gathering data across the organisation and checking for their consistency; routine variance analysis).

The third subculture is the “customer interface” subculture, which is farther away from the remaining two and, in particular, is a “counter-culture” to the professional culture. The characterisation of this subculture recalls some empirical insights about IndCo’s local sites, focused on meeting customer requirements, as analysed in the previous chapter. A comparison of these two groups (professional and administrative, vs. customer interface cultures) along two of the dimensions is particularly revealing: the customer interface culture is clearly more results-oriented (rather than process-oriented); and it has an unequivocal preference for a loose control (rather than tight control). Therefore (and recalling that Hofstede’s work is merely used as a rough suggestion and comparison), Hofstede’s typology of organisational cultures suggests that the activities and objectives of the CC would foster a strong alignment between extant central actors and the new CC (as a collective actor) and its individual actors, while distancing their members from the traditional perspectives at IndCo’s local sites.

The third promoter of alignment may reside on conventional human resource management issues. The importance of selection processes to attempt to hire candidates with adequate skills and values has long been acknowledged (Ouchi, 1979). In particular, considering the candidates’ values is important to promote alignment between candidates’ values and the desired orientation for the job position and the overall organisational structure in which the person may work (Donnelly *et al.*, 2000).

The CC was staffed with two types of people: those who had been already involved in consolidation at a group level (and therefore had already been immersed in a context promoting a central perspective); and those recent graduates who were newly hired.

As regards this last group of newly hired recent graduates, being new to the organisation, they had not been influenced by IndCo's prevalent rules of practice, tending to privilege the local level. Additionally, their recruitment and selection process (whose interviews, e.g., were carried out by the responsible of the project himself) clarified what was expected from the candidates. Furthermore, a self-selection process occurs, whereby candidates who are not pleased with the job being proposed (considering the job in an holistic way, with its various dimensions) will probably not take it (e.g., Merchant *et al.*, 2005 and Oliveira, 2001). Therefore, it could be expected that this newly-hired group might more easily endorse from scratch this centrally-oriented perspective.

Fourth, and beyond the selection stage, membership to a given organisation is, in general terms, always provisional. In addition to formal and legal mechanisms of human resources management to exclude employees due to an unsatisfactory fit or performance, Munro (1999, pp. 445-6) expands these mechanisms and recalls the more subtle pressure over employees to be considered – and continue to be considered - a part of a certain group, in particular the group of “good managers”. Membership of a certain group is “provisional – and kept provisional”; “within daily practice, (...) questions of membership are seldom fully settled: they usually remain *as* questions” (emphasis in the original). “And it is exactly this provisionality over membership that is important to understanding power effects”. Therefore, there is a need to continuously perform “membership work” to ensure continuous membership of desired groups, both

in informal grounds and in formal grounds (including the formal and legal mechanisms for defining job relations)²⁷. Importantly, the referents for membership of these newly hired actors were the CC and the other central actors, in particular the top managers involved in the creation of the CC.

Therefore, *IndCo's actor-network* was *expanded* with a *new, emerging collective central actor* (the CC itself) and several *new individual central actors* (working at the CC), which could be expected, for the four above reasons, to be aligned with the perspectives of other central actors (including Mr. A).

The emergence of these new central actors could be expected to create changes in the distribution of power within the organisation. The first power shift may derive from this new component of the actor-network endorsing rules of practice aligned with central actors' objectives – i.e., a power shift related with the *circuit of social integration*. The second power shift may derive from the CC as a material condition becoming an Obligatory Passage Point and/or reinforcing the centrality, unavoidability and effectiveness of other OPPs – i.e., a power shift related with the *circuit of system integration*. The next chapter examines to what extent these possibilities of institutional and power change actually happened.

²⁷ Employment contracts may offer a definitive formal affiliation to a given organisation. The 'definitive' nature of formal membership of these job relations is an exception to Munro's notion of provisional membership. But, not only Munro was not concerned (or mostly concerned) with the formal and legal aspect of membership, but also this exception to the "provisionality over membership" was not applicable to the new actors being hired to the new CC – the empirical issue under examination.

6.2.4 PERCEIVED CONTINUED LIMITATIONS... AND AN ADDITIONAL ORGANISATIONAL INNOVATION: A SHARED SERVICES CENTRE

By 2000, the technological and organisational innovations introduced (SAP FI and the CC, respectively) could be expected to have a significant contribution towards achieving the objectives of allowing a reliable global visibility over the organisation and granting central actors a more effective capacity to be aware of, control and intervene in the business activity.

However, central actors perceived that these technical and organisational innovations would not be sufficient, by themselves, to achieve the above goals. In fact, central actors producing and analysing global financial information continued to experience problems. In spite of the implementation of SAP FI, and although this single system had already been further aligned with the objectives of central actors, *information timeliness and comparability* across the various sites continued to be *unsatisfactory*. In fact, these are *the same types of problems* which existed before SAP FI (see subsection 5.3.3), although now at a significantly minor scale.

The persisting problems (from a central actors' perspective) were attributed to the fact that *financial accounting activities* were *executed locally* and, inherently, *by different actors*. The decentralised execution of financial accounting, in particular heavily transactional activities (data posting, reconciliation, etc.) was perceived as an obstacle to the objectives of central actors. This was one of the reasons which triggered the idea, in late 2000, to create a Shared Services Centre in Portugal. This new organisational configuration is the focus of the next section.

6.2.5 SUMMARY

This section analysed the second innovation in IndCo's circuit of system integration: the relocation of IndCo's CC to Portugal and, in particular, to the same site where Mr. A and the group headquarters were located. This section analysed underlying motivations, processes and expected consequences. Central actors, and Mr. A in particular, perceived that top management structure and functioning mechanisms, as well as prevalent rules, limited their capacity to gain knowledge and effectively intervene, hence ultimately reducing their power. This was a strong motivation for introducing this innovation.

The analysis of the relocation process introduced the insight, to be developed in the next chapter, of a *strong mutual dependency* between the CC and SAP FI. Each innovation was an important resource to the development of the other. Initially, the embryonic state of each of them limited the possibilities of development of the other. But as each innovation developed, in parallel and interrelated processes, that mutual dependency gradually became a mutual reinforcement.

After the CC innovation, IndCo's *actor-network* was expanded with a *new, emerging collective central actor* (the CC) and several *new individual central actors* (those working at the CC). As discussed, it could be expected that these new actors would be closely aligned with the perspectives of other central actors (including Mr. A). Additionally, some expected consequences on IndCo's distribution of power were anticipated. Finally, this section identified perceptions among some central actors of the desirability of an additional innovation: a *Shared Services Centre*. This additional organisational innovation in the circuit of system integration is analysed in the next

section, as an additional and important component of a gradually developing and strengthening network of Obligatory Passage Points.

6.3 AN ORGANISATIONAL INNOVATION: THE CREATION OF A SHARED SERVICES CENTRE IN PORTUGAL

This section analyses the creation of a Shared Services Centre (SSC), an organisational innovation introduced in 2001, shortly after the adoption of SAP FI and the relocation of the CC. The creation of a SSC implied a new corporate model. The new model included three areas: the CC, focused on global, organisation-wide issues; the Strategic Business Units, focused on sales and/or production in defined geographical areas; and the SSC, providing services to the Business Units. Figure 6.2 below represents the new corporate model and indicates the main responsibilities attributed to each area.

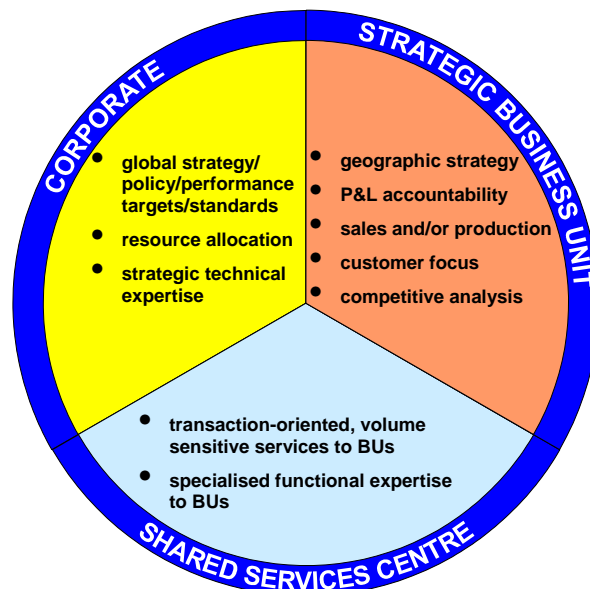


Figure 6.2: IndCo's new corporate model (Source: Internal presentation, 2005)

This section starts by identifying the actors who proposed this innovation and examining their motivations, as regards the SSC's creation and its location; Clegg's framework of circuits of power again assists in interpreting the limitations and motivations of the actors. The second subsection analyses four stages of the process to create the SSC: evaluation and approval; project design; implementation; and optimisation. It highlights the main choices and challenges and relates them with the limitations and motivations of the actors involved. The third subsection analyses some consequences for IndCo's actor-network – and preliminarily indicates expected changes in IndCo's circuits of power. A brief summary closes this section.

6.3.1 THE MOTIVATIONS TO CREATE A SSC

The motivations to propose the SSC were a consequence of limitations perceived by the proponents. Key actors involved have a common trait: they can all be associated with IndCo's centre. In particular, Mr. A, IndCo's chairman and main shareholder, was identified as a key proponent and supporter of the SSC. Additionally, other actors associated with the emerging CC, and of the accounting and finance function in particular, were also crucial. The motivations about the *creation* and the *location* of the SSC are analysed separately, as they are different, though related.

6.3.1.1 SSC creation: improving financial accounting data quality and reducing costs

As regards the *creation* of the SSC, the decisive issue is the identification of the actor(s) who originally put forward the idea of creating a SSC. Mr. A may be considered as the key proponent of the SSC concept. An IT interviewee emphasised the

vision of Mr. A and his role for the creation of the SSC (in contrast with the previous lack of a clear long-term strategy for the accounting and finance area):

“I appreciate Mr. A, for that [the proposal and defence of the SSC]... He had a dream... And there were many opponents to the SSC. (...) He started realising that other (...) multinationals had SSCs. So why shouldn't IndCo have one?”

A key member of the SSC implementation, in a work in 2003 (reference omitted for confidentiality issues, henceforth referred to as “anonymised work”), stressed the role of formal power in overcoming the initial lack of consensus, at a top management level, about the SSC concept. While the study did not mention the name of Mr. A, during the interviews for this thesis the author identified Mr. A as that key, formally powerful actor.

A project as large and complex such as the creation of a SSC obviously does not rely on one man alone. Overall, the key actors supporting the project can be broadly described as central actors, who ranged from the newly emerged actors of the newly emerged CC in Portugal, to top managers – up to Mr. A.

Two motivations were identified: to improve information quality and reduce costs. The first motivation, improving accounting information quality, was typically stressed as the primary objective by respondents of central accounting and finance areas, who produced and analysed financial information at a global level. They considered that the implementation of SAP FI had *not* been sufficient to ensure satisfactory *information quality*, in terms of *consistency and timeliness*, to support their decision making and control processes. The implementation of SAP FI, *even after* adopting a parallel accounting solution, ensured uniformity only as regards the

information system and the accounts structure. However, two CC and SSC managers agreed that...

Respondent #1: “You could not ensure that the costs and profits were classified uniformly in all locations. **Respondent #2:** Even with the [same] chart of accounts. **Respondent #1:** The chart of accounts can be the same, but one [accountant] can post ‘up there’, another ‘down there’, the other ‘in the middle’... You don’t have the slightest chance to control. It’s not a matter of controlling for the sake of controlling. It’s because the only way to guarantee that there is consistency, is to have the same team processing, posting the information.”²⁸

This lack of consistency in posting accounting transactions created problems for management control and decision making by central actors. There were also problems regarding disparities between financial and management accounting, which a SSC member considered that “sometimes were not that simple to explain”, largely due to the lack of central visibility and understanding of the detailed criteria and choices actually followed by the various accountants throughout IndCo in their everyday practices (as discussed below in this subsection, these problems concerned *prevalent rules of practice*). It should be recalled that the SAP FI project also included some basic costing components and that, given SAP’s single point of data entry philosophy, consistency problems entering information in SAP for financial accounting purposes have repercussions in other types of information, such as management accounting.

As a *secondary* (rather than primary) objective of creating the SSC, both managers agreed in indicating *cost reduction*:

“The great driver of the decision was not cost savings; it’s obvious that it also counted, but it was not [decisive]. (...) It is clear that there is a savings

²⁸ See related quotes in subsection 5.3.3. A particularly relevant sentence of one of these managers is here reproduced again: “Simply, each one did as he/she knew and was used to doing, giving total and absolute priority to the country’s reporting, and not the internal group reporting.”

component [in the decision]. But that was, let's say, a surplus which came a posteriori."

There were several expected sources of cost savings. It was expected that concentrating transactional accounting activities in one single location (rather than being scattered across many of IndCo's sites) would eliminate duplicate activities, create synergies and economies of scale. It was also expected that a continuous learning process at the SSC would allow faster and more systematised operations. Therefore, it was expected that, at a organisation-wide level, fewer employees would be required. Moreover, the chosen location of the SSC, Portugal (to be analysed below), also allowed for lower labour costs, when compared with the total labour costs of the accountants and other staff from the various locations whose functions would now be eliminated.

Although the two managers, as well as other respondents, stressed that cost reduction was a secondary objective, other respondents argued that it was the sole motivator - as the following IT respondent, who highlighted an emergent perception of cost inefficiencies:

"Many times, [innovation] doesn't come from a logic of 'let's have a single model and so on'. Sometimes, things follow an economic rationality and we realise that [we'll] only [make it] by standardising.... The idea of the SSC is born precisely from an emerging awareness that there are 'n' people in Spain, both at a corporate and at a plant level, etc. (...) There was the evidence of Madrid. There was the evidence of [country C]. [Country C] had the centre in [small village X], the centre with the lakes and the ducks, a whole bunch of people doing almost nothing – in addition to the people at the plants. So, there was increasing evidence that [there were inefficiencies]. Studies were made, quick headcounts, to know how many people were working in the financial area. Doing the accounting postings, etc., etc.. Then, there is a rationalisation work; and to rationalise, there is obviously a need to [centralise] (...). It is impossible to have a rationalisation process like this and tell [the local people] 'You, rationalise!'. They will immediately say that it's impossible, etc.. So, the

only way is precisely to aggregate (...) in a single function. So, let's do it centrally."

In another interview, the same IT respondent again emphasised the importance of cost reductions, arguing that SAP FI, by itself, had been sufficient to ensure information access and control:

"In terms of control, you log-in in the [SAP] system (...) and view all the accounts from [a particular country]. You have control. Technologically, any person who logs-in in SAP in Portugal, logs-in in SAP [of country C]. (...) The SSC issue emerged due to... [pause, choosing words] Human Resources. (...) One started realising that a common back-office would reduce... [total staff in the financial areas, at a company level]. And the decision was strongly based on the reduction of staff numbers. Control already existed before [without the SSC]."

All respondents discussing the motivations for the creation of the SSC agreed that there was a cost saving objective, and typically both objectives (cost savings and information quality) were mentioned. However, it should be highlighted that respondents emphasising the cost saving objective (and neglecting the information quality objective) were *not involved in accounting and finance*. As such, they were *less* affected, if at all, by issues of (lack of) quality of financial information for decision making and control and were therefore less aware of the extant limitations highlighted by actors directly involved in the accounting and finance area. In addition, *their IT perspective* promoted an emphasis on *IT-based information control*, neglecting the role of organisational structures.

As a conclusion, as regards the motivations for creating a SSC, there is convincing evidence to acknowledge, at the very least, *some* role of concerns about data quality for management decision making and control, in addition to the unanimously mentioned cost reduction goal.

6.3.1.2 SSC location: creating proximity to central actors

The SSC was located in the same site of the corporate centres of IndCo and IndCo's group, in Portugal. The anonymised work mentioned above and several interviewees indicated several reasons to support this choice: economic; technical; and power related.

A number of economic and technical reasons supported the choice of this location. There were cost savings due to the lower wages in Portugal, when compared to most other countries where IndCo had operations. One particular country might allow lower labour costs; however, it did not satisfy other selection criteria, it was distant from all other locations and was considered little attractive as a destination for the Portuguese who would have to work there (a basic assumption of the project). It was also considered that the Portuguese labour market would be able to satisfy the significant labour demand that was predicted, especially during the early stages of the SSC operations. Also, in this site, IndCo and its group already had a high level of competences and organisational and technological structures in the relevant areas which could facilitate the implementation and everyday work of the SSC, such as IT, finance, accounting and legal support.

Finally, the anonymised work mentioned above indicated a factor that was “definitely decisive: (...) the fact that IndCo's Centre of Decisions was in [city C]-Portugal: with the SSC, the information supporting the decision-making process would be centralised (...) and, therefore, should be situated as close as possible to those who need it the most”. “The very location promotes a greater control by the Corporate Centre of the administrative and financial processes carried out by the SSC”. This

motivation should be emphasised. Central actors' objectives went *beyond better quality*, centralised accounting information. It was also desired that its *centralised production* was carried out in the *proximity of the central actors*, both for decision-making *and control* purposes.

Therefore, *location* emerges – again – as a factor with relevant repercussions in power issues – as was the case as regards the location of SAP FI databases (see first section) and the location of the CC (see second section).²⁹ Central actors' concern with location is better understood by examining their limitations *before* the SSC. These previous limitations are now examined, separating the limitations on the circuits of *system* and *social* integration.

6.3.1.3 Limitations of central actors due to a decentralised organisational structure in accounting: the circuit of system integration

A *decentralised and autonomous* accounting function, in particular as regards the *transactional* component, was a part of the existing organisational arrangements at IndCo. In other words, a decentralised accounting function was part of the material conditions which, alongside the technical aspect of autonomous accounting information

²⁹ A CC manager analysed how the location of structures affected power in the case of the Retailer Business Unit of IndCo's group. Because of the theoretical importance of the analysis, the interview extract is included next (although in a footnote, given that it concerns an empirical setting beyond the scope of the case study).

Respondent: “At the time, [the group unit] was initiating the centralisation process, which included withdrawing from the local sites some responsibilities, such as issuing payments, etc. (...) It started by withdrawing some responsibilities and powers from the shops. (...) [Later] it accelerated enormously with an [industry-specific management change project], which obviously radically changes the approach, the logic and the centre of power.

Researcher: You mentioned the issue of power being associated with the location of certain structures and activities. So, when you are referring to these transfers and centralisations, we are not just talking about activities, we are also talking about transfers of power.

Respondent: If nothing else, of decision power. Actual [decision power].

Researcher: Could you elaborate on that dimension of ‘actual’?”

The respondent then returned to IndCo's case in the 1990's, confronting the formal decision power of Mr. A with his limited effective decision power. See quotation in subsection 5.4.1, in page 329.

systems, affected power relations across IndCo's actors, through the circuit of system integration. Decentralisation made central analysis of organisation-wide information mode difficult and therefore limited central actors' power, as already amply illustrated.

Since many accounting activities were included in local organisational structures with high autonomy, local actors had a high degree of flexibility and discretion in managing accounting processes and production. This flexibility and discretion allowed local actors to adopt locally specific, tailor-made accounting criteria and reports. It also allowed local managers to adopt less strict control processes. Two SSC members recalled examples of lack of control at a local level, before the SSC:

Respondent #1: “At the time [the SSC was created], people felt they lost the autonomy to decide and do the things with the freedom they were used to. However, in our opinion, and it was a generalised opinion, even with that autonomy and doing whatever they wanted, in many situations things were not correctly done. We realised, when [the accounting processes of] the companies were moved to the SSC (...), that there were countless situations which were not properly controlled. **Respondent #2:** Circularisation maps, they didn't use them... Fixed assets were not inventoried... **Respondent #1:** It was all ‘wonderful’. There was a ‘laissez-passer’ [approach].”

These insights not only reinforce the view of the low priority given to accounting and control issues at some local sites, but they also reveal that local actors indeed had the capacity to implement the control mechanisms they preferred (and, in particular, *not implementing* others). Therefore, this discretionary capacity *not* to implement strict controls, associated with the capacity to adopt tailor-made accounting criteria and reports, does reveal a significant power of local actors at the level of the circuit of system integration.

Contrastingly, this capacity (i.e., power) of local actors implied a loss of power of central actors, who felt the difficulty to obtain global visibility based on *comparable* and *reliable* information.³⁰ Global decision making processes involving actors from different geographical areas were typically compromised by divergent assumptions underlying the figures presented by each actor. Indeed, several respondents mentioned the frequent discussions at such meetings about whose figures were correct.

The SAP FI technological innovation had unified ISs and had already started to emerge as an OPP in the circuit of system integration, with a potential to address the interests of central actors. However, its actual effectiveness was diminished by another feature of the circuit of system integration: the decentralised organisational configuration of accounting activities. In addition, the limitations experienced by central actors did not derive only from technical and organisational limitations, i.e., from the circuit of system integration. Their limitations also derived from factors at the level of the circuit of *social* integration. This is analysed next.

6.3.1.4 Limitations of central actors due to local rules and focus, in the accounting area: the circuit of social integration

As argued in the previous chapter, prevailing rules and priorities at a local level privileged the objectives of local actors (individual or collective), and neglected central

³⁰ Interestingly, several central actors admitted that they only became fully aware of the local processes *after* the SSC was created (e.g., check the previous quotation: “We realised, *when* [the accounting processes of] the companies were moved to the SSC...”; and the limited knowledge about the decentralised processes in the Spanish subsidiary (see subsection 5.4.4 and, in particular, the quotation in page 353). More generally, this awareness increased as the centralisation and integration process advanced and more organisational and technological devices were introduced. Their initial limited visibility over local processes implied that, before the SSC, they were not fully aware of, for example, a potential lack of control over particular aspects. However, the perception that central actors *did* have, incomplete as it might have been, about their limitations was enough to motivate them to propose the creation of the SSC.

ones. Subsection 5.3.3 included a number of insightful quotes; given its relevance, one of them, from a CC manager, is here reproduced again:

“The great driver in the implementation of the SSC was the perception that we didn’t have capacity to have consistent information for decision-making, because each one had a different method. Not that there was bad-will or whatever. Simply, each one did as he/she knew and was used to doing, giving total and absolute priority to the country’s reporting, and not the internal group reporting.”

Unwritten rules, yet recurrently enacted by local actors of the accounting area in their daily practices, considered that the priority was addressing local needs, rather than global or central needs. Rule following was a perceived problem. The CC manager stressed their difficulty to...

“...guarantee that [centrally decided] rules are actually carried out. Many times, we a posteriori find that that doesn’t happen. The rules are established, the norms are established, and the practice then... [shows that they are not followed].”

The rules at stake did not become a part of actors’ internal structures, orienting their behaviour, and hence were not recurrently enacted by local actors (see section 2.3). These rules concerned mostly the reporting timings and the criteria to classify business transactions. While the first type of rules (about reporting timings) concerned *rules of membership*, the second type of rules (about criteria to classify business transaction) *combine both rules of meaning and membership*. The lack of enactment of these rules affected, respectively, information timeliness and information reliability and comparability. Ultimately, the lack of information quality caused by this lack of rule following by local actors affected central actors’ capacity to use that information to gain knowledge and intervene.

Additionally, the lack of adoption of elementary control mechanisms in some sites suggests that accounting and control issues were not considered important - characterised as the “*laissez-faire*” attitude in the quote above. This is consistent with the traditional characteristic of IndCo, discussed and illustrated with a broad brush in the previous chapter: a company focused on production and sales, and neglecting support activities as accounting and finance. The traditional rules privileging sales and production above all other concerns were emphasised by an IT interviewee, when discussing the role of ISs-imposed controls:

Respondent: “You tell me: ‘OK, this is very urgent, so let’s plan and produce it [straight away]...’ [Researcher: And then we’ll see].
Respondent: In the past, that was the philosophy. ‘Hey, I’m not going to stay around waiting for the order. Produce it [immediately]’. ‘Hey, I’m going to ship...’ [dramatised voice, suggesting the objective of ‘getting by/implementing a quick fix, expedite solution, outside defined procedures’]. Fundamentally, it’s always the rule: ‘What I want is to please the customer’. And why? Because he only sees that and doesn’t care a thing about the costs or any management implications, or whatsoever.”

This interviewee added that central actors had been, for a very long time, using IndCo’s ISs to try to limit the possibilities of enacting these historical “rules” and “philosophy” (sic). However, similar comments about these historical “rules” and “philosophy” were made by other respondents. Overall, this suggests that, although recently at a minor level, these rules were indeed *deeply embedded as actors’ internal structures* and were *consistently enacted*. These *rules of membership* consisted of orientations about appropriate behaviour, in situations where tensions existed between two alternatives. The first alternative was enacting the rules associated with the “traditional philosophy”, by adopting an immediate, quick-fix, one-off solution to that particular, idiosyncratic problem (e.g., a pressure to response to an urgent customer request). The second alternative was enacting the rules and objectives as depicted in

prescribed procedures, which attempted to orient actors in their daily practices, promoting consistent behaviours throughout the organisation and bearing in mind management needs, in particular in financial terms and at a higher hierarchical level. From the insights gathered, the first alternative of enacting historical and deeply embedded *rules of (local) membership* tended to prevail.

As a summary, centrally decided formal rules about how local actors should carry out their accounting activities and processes were not always followed, i.e., did *not become accepted and enacted as rules of practice*. Moreover, accepted and enacted rules promoted some lack of control, even at a local level. Therefore, local accounting information sent from local to central actors was often not timely, not reliable and not comparable, hence affecting the control and decision-making of central actors depending on consolidated information.

Hence, due to limitations in the power of central actors in the circuit of social integration, their capacity to know, intervene and produce desired outcomes was reduced. In turn, these weaknesses in the circuit of social integration compromised the effectiveness of the innovations central actors had introduced in the circuit of system integration: the SAP FI and the new CC. In other words, the centrally decided rules had failed to become Obligatory Passage Points (OPPs), and the rules which were indeed OPPs at a local level did not support a tight control and a global, organisation-wide perspective.

6.3.2 THE PROCESS OF CREATING AND OPTIMISING THE SSC

This subsection provides an overview of the four main stages involved in the creation and optimisation of the SSC. Such an overview retrieves insights from the current section, regarding the motivation of the actors involved, and it advances topics analysed later in this section. During the analysis of the design stage, it also provides a brief description of a workflow of a typical accounting process, clarifying the organisational actors involved and how activities are divided and linked between them.

6.3.2.1 The main stages of the SSC project

Four main stages may be identified. The first stage, to assess the feasibility and make the business case of creating a SSC, started in December 2000. The project was approved in February 2001. The second stage, project design, took only a couple of months. The third stage, implementation, spanned between May 2001 and February 2002, during which the transactional accounting tasks of nearly all countries where IndCo was located were migrated to the SSC. Finally, a fourth stage, optimisation, started as the operations at the SSC gradually became more stabilised; this stage was considered to still be on-going at the time the fieldwork was conducted, and in a process perceived as never ending.

An in-depth description of each stage was carried out in the anonymised work mentioned at the start of this section. Therefore, this subsection only includes the most relevant aspects to briefly characterise this project and support theoretical discussions.

6.3.2.2 The first and second stages: evaluation and approval; key decisions in the design

The first and second stages (evaluation and design, as well as the third stage, implementation) were heavily supported by a large consulting firm, which IndCo considered to have the largest expertise in the area of Shared Services Centres.³¹ During the *first* stage of the project (evaluation and approval), the various motivations of the actors involved – as described in the first part of this subsection – played a key role. Without a total consensus around the project among IndCo's actors, even at a top management level, the support of Mr. A proved to be decisive.

As regards the *second* stage of the project, project design, some key decisions should be examined. A structural decision was to adopt a *low-risk, conservative* strategy for the SSC implementation. It was defined that, during an initial period, the SSC would *precisely replicate* existing processes and practices at every local site, including the same number of staff. No improvements or optimisations would be sought during this stage, in order not to increase the risk of what was already considered to be an extremely complex project. Optimisation would only be pursued at a later stage (the fourth stage), after the transferred processes became better known by SSC members and became reasonably stabilised and consolidated.

This strategy of initially merely replicating extant practices therefore intended to allow each one of the newly hired actors of the SSC (see below in this section) to learn the '*rules of practice*' as interpreted and enacted by the particular local actor he/she would replace, and later precisely enact those 'rules of practice' at a central level.

³¹ The researcher did not establish any contact with this consultancy firm – which, for ethical issues, is kept anonymous.

Initially, there would be no attempt to address or eliminate any potential gaps between centrally defined formal rules and locally enacted rules, or introduce any new rules (apart from those strictly related with location).

Another key decision concerned the *project scope*, i.e., the definition of the *processes* to be migrated and the *countries* involved (the “eligible” processes and countries). The processes considered to be a first priority, and therefore included from the start, were Accounts Payable, Accounts Receivable, Closing the books, Cash and Banking, Fixed Assets and Consolidation; over time, some of these processes were merged and additional processes were added. Only two distant countries were excluded, due to important local specificities (as regards one case, its non-SAP ERP, Ross; as regards the other country, its complex taxation system), combined with their distance to the other company locations and their relatively autonomous operations.

Another crucial decision concerned the constitution of the *project teams*. The project relied on *mixed teams* of IndCo’s employees and consultants. There were two types of teams. A central team based in Portugal coordinated the project and included various competencies, such as information systems, business processes, human resources, change management and infra-structures. The second type of teams (mixed teams of IndCo’s employees and consultants) implemented the changes in each country and each site. Additionally, members of the SSC accompanied each implementation team to each site, in order to locally learn the tasks they would soon be taking over. During a first stage, the SSC members just observed the local members performing their tasks; at a second stage, they started performing the tasks themselves, with the supervision of the local members. This learning strategy (observing, learning and reproducing existing local practices, and then migrating them, unchanged, to the SSC)

was an essential part of the overall low-risk, conservative strategy of implementing the SSC, as outlined above.

One of the key deliverables of this second stage was the design of the processes after migration, under the new organisational structure³². A very brief description of a typical accounting process, split between the local teams and the SSC, may be useful at this point to provide a better feeling of the SSC activities and role within organisation-wide processes. Figure 6.3 below, copied from the anonymised work mentioned at the start of this section, describes the workflow for receiving and posting supplier invoices and depicts the clear separation of activities between the local business unit and the SSC (and the cost owner, should approval or correction be required). It also reveals the central role of the two information systems, SAP FI and IXOS, to allow the execution of all the accounting procedures without the physical presence of the document and with a minimal intervention from the local accounting team – which merely scans and archives the document upon arrival.

³² By adopting the consulting jargon of a “gap analysis” (e.g., Johnson *et al.*, 2005), this deliverable corresponds to the “To be” scenario. Other typical, related deliverables are the “As is” deliverable, where current processes are described, and the “Gap” deliverable, where the differences between the “As is” and the “To be” designs are highlighted.

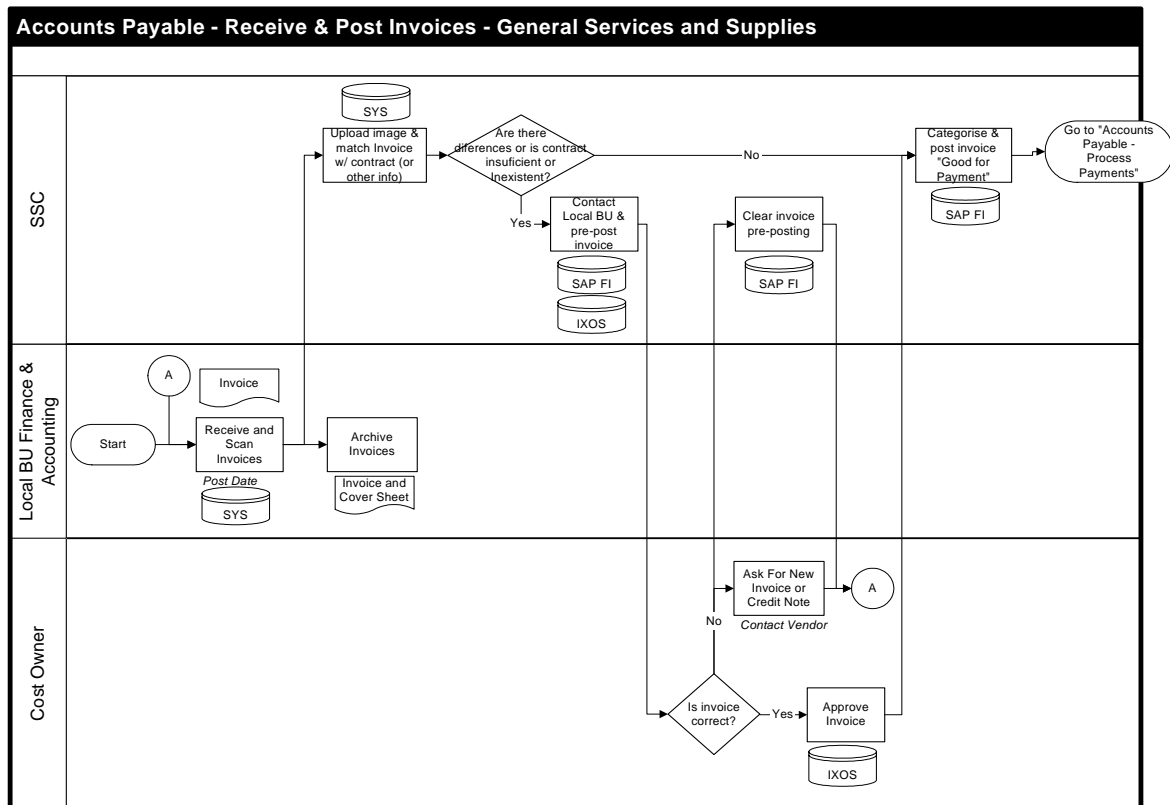


Figure 6.3: Workflow for receiving and posting supplier invoices (Source: Anonymised work, p. 79; authorisation obtained)

As depicted in the figure, when a document (e.g., a supplier invoice) is received at a local unit, a member of the local team must scan it into IXOS, a document management solution linked with SAP. A member of the SSC then accesses the scanned image of that document, and a defined workflow carries the scanned image through the various steps of the accounting process (e.g., invoice approval, posting in the appropriate account and payment) and through the various actors involved, both at a central level and at a local level. At the end, the invoice is ready for payment³³.

³³ In the early stages of the SSC, some processes did not function in such a streamlined way, for a number of reasons. In particular, at the time, a significant number of processes was still based on the legacy solution SOIC, rather than SAP. The use of the legacy solution implied a detour from the described workflow as regards a number of operations, and it required using work-around techniques (mostly, parallel, temporary software developments) to overcome the limitations. However, the initial processes workflows already contained the essential traits of the current ones; therefore, analysing a current workflow is an acceptable proxy of analysing a workflow without a fully integrated SAP system.

6.3.2.3 The third stage: implementation (and implementation difficulties)

The third stage, implementation, was unanimously considered as having faced considerable difficulties. In particular, implementation at the subsidiary in country C – the large competitor acquired not long before, in 1998 – may be considered the most difficult case for a number of reasons. The most significant and recurrent difficulties are now analysed, with a special focus on country C.

Country C was the second country whose operations were migrated to the SSC - only 15 days after the migration of the Portuguese operations. Migrating country C at such an early stage derived exclusively from an organisational urgency: after rejecting various changes proposed by IndCo's central actors (including relocation to another part of the country), local members quickly started leaving the company. This endangered the normal execution of the required daily activities, in particular in the accounting, finance and administrative areas. So, migrating country C's processes to the still emerging SSC became extremely urgent.

Two main sources of difficulty were highlighted: *people-related* and *technical difficulties*. These difficulties typically existed in the implementation in all countries. However, they were particularly serious in the case of country C, particularly due to the short time available, the still early stage of the emerging SSC and the lack of knowledge of its members. Each source of difficulty (people-related and technical difficulties) are analysed separately, although their effects are frequently combined.

As regards *people-related* problems, *resistance* from local actors to the SSC project was common in most countries, and country C was by no means an exception.

Local managers strongly resisted, since they perceived that the elimination of the local teams would reduce their power, as highlighted by two CC and SSC respondents:

Respondent #1: “[The SSC project] was extremely complicated indeed. (...) The project was not ‘bought’ by [local] managers... **Respondent #2:** They were forced. In plain Portuguese. **Respondent #1:** And they had to support, because they had to. **Respondent #2:** Supported... [not agreeing] They [merely] accepted. **Respondent #1:** Exactly, they were [merely physically] present at the meetings. **Respondent #2:** There was no cooperation. It was clearly perceived as a loss of power. **Respondent #1:** I was precisely going to say that.”

Lower level actors, to be made redundant due to the drastic reduction of local teams’ size, offered an extremely high resistance – although they were indispensable to allow the SSC members to learn the local work practices. The following quote from a SSC member illustrates the kind of resistance encountered:

“Cooperation was many times close to zero. In [country C], people [from the SSC] were simply locked in a room, during a first stage. (...) They were simply given a computer. (...) The local person simply wouldn’t cooperate or didn’t even let you sit beside him to see how he performed his work.”

This resistance typically declined as the days passed, informal relations started being established and local actors started accepting that there was little point in not cooperating and the change was inevitable. But the initial resistance was a serious obstacle. The SSC members had a short time available for learning existing practices and underlying ‘rules of practice’.

To make things worse, many people sent in this first implementation were very junior at IndCo and had a scarce knowledge of local accounting rules and a scarce knowledge of SAP – all additional liabilities in the learning process (indeed, in later implementations, SSC members were given more SAP training before being sent out to

the countries). Lack of knowledge about country C's rules, especially about taxation, was acknowledged to still persist at the time some SSC members were interviewed, in 2007.

“As regards taxation, as we don't have sufficient know-how, not even a little bit, we have to do everything they (local people) want, full stop.”

The (still existing) knowledge asymmetry in favour of the (remaining) local actors was acknowledged to have an impact in their power relationships with central actors, granting local actors the capacity to lead central actors to accede to their requests to implement local specificities. That this still occurred several years after processing country C's operations, allows imagining the scale of knowledge (and, in that regard, power) asymmetry at the time of the roll-out.

Technical difficulties involved two information systems (the SAP system and the document management solution IXOS) and the underlying technical infrastructure. The migration of country C's operations to the SSC was a unique case. Country C's subsidiary already had a fully integrated SAP system, including SAP operational modules - while Portugal only had SAP FI, at the time. However, the SAP FI version of country C's subsidiary was older than IndCo's and had a completely different structure. This difference required that, during an initial period, the SSC members had to use country C's chart of accounts, even without a detailed knowledge about it (in addition to the lack of knowledge of local accounting and taxation rules and of SAP, as mentioned above). The following quote from a SSC member highlights the precarious way the SSC initially operated, due to the difference between the two SAP systems and the lack of knowledge of the SSC members.

Respondent: “We had an extremely complicated problem at the SSC. No one [from the SSC] understood the SAP system [of country C]. They only knew that they had to press that key, then press that key, and that thing (SAP) would get things done, and that’s it. But no one understood the system well. It’s a good example that having SAP or any other system may not mean anything, because it [SAP] can be so different, that no one understands anything. Even the IT team had tremendous difficulties in understanding that system. [**Researcher:** So, the SSC managed to work and post the transactions in a more or less mechanical away.] **Respondent:** In [country C]? Yes, of course. We got there, we learned ‘he presses that button, and that one, and that one’. SAP provides a huge advantage – which can be a liability in the future: performing accounting activities, without understanding anything at all. We even had Law graduates here. Who didn’t know what a credit or a debit was. And they did it. ‘Select option 24, or whatever, and it [SAP] will do everything correctly.’”

In addition, performing accounting tasks in Portugal was further complicated by communication difficulties. SAP and IXOS servers containing country C’s information were located in Germany, and communication delays threatened to paralyse operations at the SSC – even while working seven days a week.

These (and other) difficulties were eventually overcome, at varied paces. As regards technical difficulties, the Global IT team developed interfaces and work-around, temporary solutions³⁴. Soon, SAP FI servers still located outside Portugal were eliminated. The centralisation of all SAP and IXOS data in a server in Portugal, near the SSC, allowed overcoming the severe communication limitations. Finally, the roll-out of IndCo’s model of SAP’s financial and logistic modules to the various countries (a gradual process which started in 2001) was another important and structural step, by providing an integrated system encompassing various functional processes and geographical areas.

³⁴ An example of such temporary solutions was the temporary use of Lotus Notes to overcome workflow problems derived from the existence on the legacy logistic solution SOIC, described in footnote 33 in this chapter. This and other expedite solutions were described as not being ideal, but allowed to quickly overcome the problems at hand.

As regards *people-related* difficulties, there were important changes in the SSC and at local level. As regards the SSC, knowledge of SSC members gradually developed and, collectively, the SSC was increasingly able to provide a better service to the business units. At a local level, the people whose activities were migrated to the SSC and who were not reassigned to other functions – and who were, understandably, against the project – actually left the company. Additionally, there were also exercises of force upon certain local members whose resistance was, according to the interpretation of interviewed central actors, unjustified. A CC manager thus justified the episodic exercise of (formal) power and even force (with sanctions being enacted) upon local actors:

“The idea [of the SSC] can be ‘sold’ if there are people willing to buy it. If there is resistance purely just because that implies change, if the people [wish to] remain in the status quo, no ‘sale’ is possible, no matter how hard you try. It was inevitable, it was necessary to do some... At a certain time, there was no ‘sale’; it was implemented, because otherwise... [there would be sanctions]. Those not willing to adapt, left, either immediately or later. Because it is not possible to keep negotiating compromises for two years.

Also because, if errors are detected, they are corrected; however, if it seems reasonably clear that there are no errors and what does exist is resistance to change because it is going to affect a certain [personal] position, there can be no compromise. Otherwise, we get to the end of the project, money was spent and everything stays the same, the information [quality] still doesn’t meet your objectives.”

The reduction in the resistance of remaining local team members and managers had multiple sources. This reduction of resistance of local actors was not only based on episodic exercises of power, and even force, namely by excluding those actors from the organisation. Reduction of resistance also goes beyond the end of the influence of the actors excluded from the network, when they left the organisation. Some interviewees,

such as a SSC member, provided an explanation of the change in actors' dispositions based on the passage on time.

“As time passed, people started accepting this idea [of a SSC].”

However, an explanation that adaptation to new rules, work practices and, even more importantly, acceptance of a new concept like the SSC, occurred “naturally”, simply as a consequence of the passage of time, seemed to be limited and unsatisfactory for this case. Although the change did take its time to unfold, relying on the passage of time as the main explanatory factor emerged as clearly simplistic – in line with Quattrone and Hopper (2006)’s more general argument, when they stressed the non-linearity of time and its effects. The explanation resides in cumulative, reinforcing repercussions of the various changes introduced, including other innovations in the circuit of system integration, as described in the remainder of this section and, in particular, in the next chapter.

Significantly, this unfolding process of acceptance was neither unidirectional nor completed. Tensions and resistance at a local level remained a persistent feature at the time the fieldwork was conducted, although certainly at a lower level than during the implementation stage (see several quotes from subsection 5.4.1 “Main actors, their power and its source - an introduction”). These persisting tensions and resistance are in line with the argument of Clegg and Actor-Network theorists, that permanent tensions within the actor-network are an inevitable feature of actor-networks. As such, any comprehensive explanation must consider both phenomena: of adaptation and of resistance.

The explanation can, and should, be even broadened more. Resistance to the SSC was found to be a particular case of a broader phenomenon at IndCo: the traditional misalignment between local and central actors, and consequences of such misalignment. Likewise, the reduction of resistance to the SSC was found to be a particular case of a general trend towards *the promotion and enactment of rules favouring central actors*. This discussion is developed in the next chapters.

6.3.2.4 The fourth stage: optimisation

After the migration of the processes from the local sites to the SSC and their stabilisation under the new structure, the fourth stage of the strategy started: optimisation. This optimisation stage was not related with solving the acute problems (IT and people- related) that emerged during the implementation stage. Rather, the optimisation stage consisted of the progressive detection of possible improvements to the various processes, in order to increase efficiency and effectiveness.

As regards total costs, staff numbers, both at the SSC and at a local level, suffered a very significant and progressive reduction, throughout the years (actual figures omitted for confidentiality reasons). Additionally, the lower labour costs in Portugal also contributed to the reduction of total costs.

As regards the SSC output, at an initial stage, it was typically criticised by local actors. Whether these initial criticisms were the consequence of local actors' previous opposition to the project, the consequence of a possible poor performance of the SSC due to the initial difficulties, or to a combination of both, is something which the interviews did not allow to clarify. However, a SSC interviewee mentioned a regular

internal satisfaction survey to the SSC's clients (the local actors), indicating that satisfaction has gradually increased. Interviews with local actors did not reveal major concerns with the SSC's work. However, interviews did provide relevant insights as regards control issues deriving from the existence and the activities of the SSC; these are explored in the next chapter.

In striking contrast with the first three stages, the optimisation stage has no defined time boundaries. Even during the years of the field study, interviewees considered that there was still room for further improvements, and that optimisation was essentially a continuous task.

6.3.2.5 IndCo's conservative implementation strategy and structural control: a comparison

It should be noted that the underlying motives for this low-risk SSC implementation strategy are different from a very similar strategy depicted by Seal and Herbert (2005). The SSC analysed in Seal and Herbert's study also initially picked up "exactly what was going on at the time and just move[d] it"; only later did it start "to look at making sure that (...) processes were as standardised (...) and as streamlined as they could be" (p. 11). However, the identified reason for postponing the optimisation stage was that the new SSC "had to demonstrate that we could do exactly what they [local business units] were used to having at the time which gave them the confidence to actually let go and say well 'OK go and do it then'" (p. 12; all quotations from interviewees).

In IndCo's case, however, the reasons for a very similar strategy were less related with the 'buying-in' of local actors. The overwhelming insight was that efforts

to ‘sell’ the innovation to local actors, to ‘buy them in’ from the start, tended to be unsuccessful in most locations outside Portugal, and the key objective of the lower-risk strategy was not to gain the locals’ “confidence to actually let go” (see above). The approach was rather targeted at *securing* structural *central* control of (previously) *local* accounting processes through the introduced innovations. In particular, it was ambitioned that the SSC (initially strongly staffed, as explained) could quickly acquire the capacity to perform local accounting processes, strongly drawing from the non-human actor SAP FI.

Securing such control was essential due to planned reduction of the local accounting teams - but, importantly, it was also essential because the level of conflict was significant. Comparing again with Seal and Herbert’s case, the “conflict-charge[]” of the “changes that were forced through” (2005, p. 31) in that organisation seems to be lower than in IndCo. The high level of conflict in IndCo can be understood given the configuration of IndCo’s circuits of power and the limitations perceived by central actors, as already discussed. A similar picture is found when analysing the expected changes in IndCo’s circuits of power arising from the SSC – an analysis carried out next.

6.3.3 CONSEQUENCES OF THE SSC ON INDCo’S ACTOR-NETWORK – AND EXPECTED CHANGES IN INDCo’S CIRCUITS OF POWER

In line with the previous section analysis about the CC, this subsection analyses how the creation of a new organisational structure – the SSC – affected IndCo’s actor-network, and how it could be expected to affect IndCo’s circuits of power. The creation of the SSC, as a new organisational structure, represented the appearance, within

IndCo's actor-network, of a *new collective actor* and a *large number of new individual actors* – a similar event as the creation of the CC. Additionally, the emergence of the SSC model also led to the *elimination* from the actor-network of a *large number of local actors*.

Important similarities, proximities and *connections* can be identified between the two organisational structures - the CC and the SSC. Furthermore, the links between these two (organisational) innovations and the (technological) innovation of SAP FI are introduced next, although the discussion is further developed in the next chapter.

First, the creation of the CC and the SSC occurred with only around two years of difference (although the gradual emergence of the CC makes difficult the definition of a precise date for the start of its operations). In addition, the design and roll-out of SAP FI also occurred during the same years, and this information system was crucial for both organisational structures. Without the aim of precisely indicating the date of each event, the following figure 6.4 allows the visualisation of the *partly concurrent development* of these three innovations: SAP FI, the CC and the SSC.

	1998	1999	2000	2001	2002
SAP FI	proposal	decision design	decision for global model roll-out to 3 countries	single server end of roll-outs	
CC	decision	gradual preparation and emergence	fully operative CC		
SSC				study and decision design roll-outs	

Figure 6.4: Chronology of the SAP FI project and of the CC and SSC creation. (Source: developed by the author)

Second, and more importantly than a mere concurrent development, *dependencies of development* can be detected between the collective actors CC and SSC; between both collective actors and Mr. A; and between both collective actors and the non-human actor SAP FI. These dependencies are now analysed.

Most significantly, both key *reasons for creating the SSC* can be traced to the CC and to Mr. A (who, in turn, was the actor who took the initiative of relocating the CC to Portugal): reducing costs at an organisation-wide level; and obtaining more timely, reliable and comparable information from across the organisation to support global decision-making and control. Both reasons reflected concerns of central actors with financial responsibilities and interests; and the information quality motivation also reflected limitations of central actors, who considered that their capacity to have visibility and intervene across the organisation were limited. The location of the SSC, as described in this section, was crucially influenced by the location of CC and IndCo's top management (in particular, Mr. A), both to facilitate decision-making and for the

CC to control the processes carried out by the SSC. Finally, as regards the links between the SSC and *SAP FI*, the SSC was considered a necessary complement to improve the financial information quality produced by the common financial accounting solution being rolled-out throughout the organisation. At the same time, and vice-versa, *SAP FI* was considered essential to implement an organisation-wide structure like the SSC.

Third, and on a more general tone, the objectives and activities of both structures had an organisation-wide scope³⁵. This broad geographical scope strikingly contrasts with the geographically specific focus of the business units (see figure 6.2, in page 440, representing IndCo's new corporate model).

Fourth, both structures were located at the same site of IndCo's holding and where the group chairman and majority shareholder, Mr. A, was based. As argued above, this proximity to the group centre and Mr. A had been a crucial factor when deciding the location of these structures.

Fifth, the staffing of the SSC had some similarities with the recruitment and selection process of the CC, as analysed in subsection 6.2.3. People for top positions of the SSC were typically brought from other central units of IndCo's group, who had already been immersed in a context promoting a central perspective. For the large number of positions for clerks initially required, external recruitment and selection processes were privileged. As concerns these newly-hired people, and similarly to what was argued about the CC, they had not been previously exposed to the local level focus

³⁵ The SSC's global scope had some geographic and functional exceptions. As indicated in the previous subsection, the SSC did not initially encompass the activities of two countries. As regards the processes and activities to be migrated to the SSC, determining the eligible ones almost inevitably implies that some would eventually be excluded, for one reason or the other. These geographic and functional exceptions to a truly global scope do not prevent the consideration of the SSC as having, both as an underlying philosophy and as a *de facto* structure, an organisation-wide perspective.

traditionally prevalent in IndCo. Moreover, IndCo's selection processes (e.g., Ouchi, 1979), the candidates' own self-selection mechanisms (e.g., Merchant *et al.*, 2005 and Oliveira, 2001) and the pressure of the newly-hired to conduct *membership work* (Munro, 1999) towards *Portuguese central actors* promoted a closer alignment with a centrally-oriented perspective.

Therefore, not only was IndCo's actor-network expanded with a new collective actor (the SSC), but also with a large number of new individual actors (SSC workers) - both created under conditions which promoted an alignment with the perspectives of other central actors (Mr. A and the recently created CC). The following figure 6.5 depicts the factors at work promoting this alignment with a central perspective of the individual actors who constitute the new collective actors.

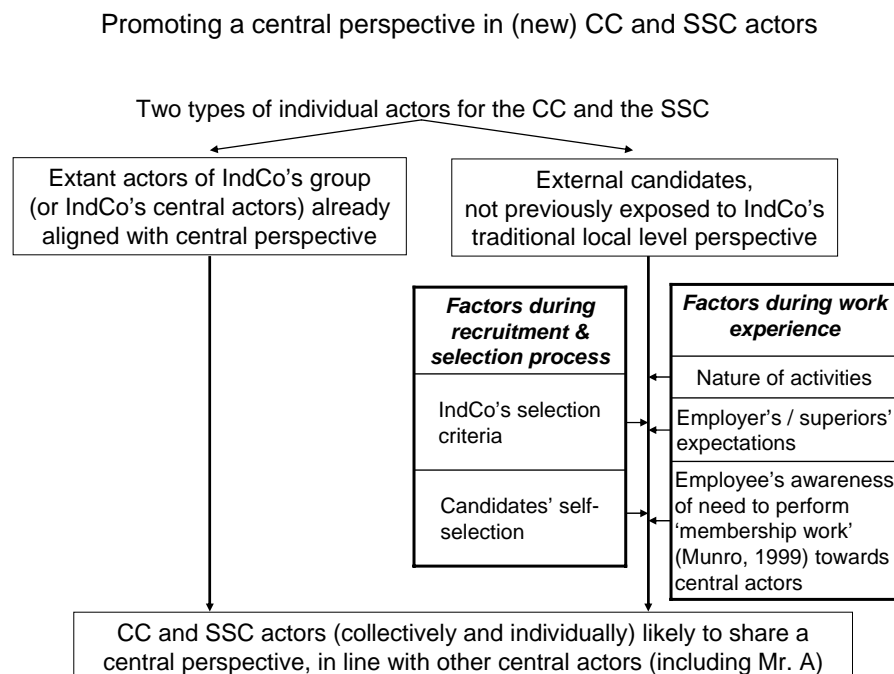


Figure 6.5: Factors promoting the alignment of (new) CC and SSC actors with central actors. (Source: developed by the author)

The objectives and activities of the SSC have some similarities with the ones of the CC. Drawing on Hofstede's (1998) characterisation of organisational subcultures as a rough, comparative indicator (as done when analysing the CC, and subject to the same important limitations and caveats emphasised at the time), the routine nature of most SSC activities may suggest that the SSC may typify the administrative culture. Given that the CC was characterised as having activities typical of both the "professional" and "administrative" categories, and that Hofstede suggested that the subcultures of both categories are not highly distinct, there may be similarities between the prevailing main cultural traits of both organisational structures. Additionally, and alike the CC, the SSC may also diverge significantly from the local sites, where a "customer orientation" subculture tends to prevail.

As argued about the CC, these new actors (with their objectives, tasks and perspectives) could be expected to bring changes to rules of practice in IndCo's actor-network, either organisation-wide or merely in parts of IndCo. I.e., these changes can (*contingently*) *cause* a shift of powers flowing through the circuit of *social* integration across the actor-network – in line with the perspective of 'power *and* its cause' (section 3.2).

In addition, shifts in the circuit of *system* integration could also be expected. The combination of SAP FI, the CC and the SSC may be considered as new material conditions which may shift the powers flowing through the circuit of system integration. Each innovation has the potential to become an Obligatory Passage Point (OPP). Additionally, this text has already pointed that a given OPP may reinforce the centrality, unavoidability and effectiveness of other OPPs. Brief and preliminary examples may be the SSC and the CC reinforcing the centrality of SAP FI, and the SSC reinforcing the

effectiveness of the CC activities. Consistently with the option taken in the previous section focusing on the CC, a fuller exploration of the empirical insights about the power consequences of the introduced innovations are left for the next chapter.

6.3.4 SUMMARY

This section analysed the creation of a SSC in Portugal. The motivations underlying the decisions about the SSC creation and location were examined, particularly in terms of the motivations of the various actors involved. Then, the process of the creation and optimisation of the SSC was analysed. The last subsection analysed the consequences of the creation of the SSC for IndCo's actor-network, and suggested possible consequences regarding IndCo's prevalent rules of practice and the power flowing in the circuits of system and social integration.

6.4 SUMMARY AND NEXT STEPS

This chapter analysed key innovations introduced in IndCo between the late 1990's and the early years of the new millennium as regards the underlying motivations and their implementation processes. Motivations were particularly related with limitations experienced by some central actors as regards key aspects of IndCo's circuits of power. Finally, this chapter also suggested some *expected* changes on IndCo's circuits of power, upon the introduction of these innovations. As a continuation of such analysis, the next chapter starts by exploring the empirical insights regarding the *actual* consequences of these innovations on IndCo's circuits of power – the third element of the case study narrative (Czarniawska, 1998).

CHAPTER 7 – DISCUSSION

7.0 INTRODUCTION AND OVERVIEW

This chapter analyses how the innovations introduced in IndCo's circuit of system integration (SAP FI, the Corporate Centre and the Shared Services Centre) reconfigured IndCo's circuits of power (Clegg, 1989). It analyses *actual* repercussions (rather than expected repercussions, as in the last chapter) of the innovations, as regards the emergence and consolidation of Obligatory Passage Points – i.e., structural features in the circuit of social integration or in the circuit of system integration.

The first section focuses on the repercussions of the innovations on the circuit of *system* integration (attempting, for analytical purposes, not to include repercussions on the circuit of social integration, as discussed below in this introduction). It starts by analysing the repercussions of the SAP FI innovation. Then, since the repercussions of the CC and the SSC cannot be isolated from SAP FI, the section analyses the *combined* repercussions of the three innovations. The section concludes with several theoretical contributions – still restricted to repercussions on the circuit of system integration.

The second section focuses on the repercussions of the innovations on the circuit of *social* integration. After an initial subsection discussing the issue of direction of causality between circuits of power, the second and third subsections analyse the repercussions of *SAP FI* and the *SSC*. The fourth subsection analyses the repercussions of the *organised network* of innovations, in their interrelated totality. The fifth subsection presents several theoretical contributions.

This separation between the repercussions on the circuits of social and system integration is done merely for analytical purposes, since the circuits are highly interrelated, as already noted in the last section in chapter 5. In fact, the choice of the word ‘repercussion’ (rather than alternatives such as ‘impacts’ or ‘effects’) intended precisely to convey the idea that the ‘effects’ were typically not direct. Instead, they emerged from a process of “reverberation”, a ‘reverberation’ in which the innovations had “continuing serious effects” (both definitions from Concise Oxford Dictionary) and often had an indirect, diffuse, non-linear, uncertain and contingent nature. Furthermore, typically these repercussions did not derive from an *initial single* event (e.g., the introduction of one single innovation). Instead, the repercussions typically derived from a set of interrelated, reinforcing events, sometimes separated in time and even only gradually emerging, in terms of their scope and/or capacity (e.g., the gradual roll-out of SAP FI or the SSC to the various countries, and the increasing capacity of the SSC to process and ensure control of the subsidiaries’ accounting tasks).

Acknowledging other innovations

As noted in the previous chapter, other innovations became intertwined with these three innovations (SAP FI, the CC and the SSC), but were not selected as major foci of analysis. Two major types of innovations are at stake: other technological and organisational innovations; and rules.

As regards other technological innovations, a first example is the accounting consolidation solution Hyperion. Hyperion had been introduced at group level shortly before SAP FI was adopted in IndCo and it played an important role in the process of SAP FI mobilisation. Other SAP modules (SAP SD, MM, PP and CO-PC) and the

IXOS and IDAR solutions were also relevant technological actors in the ongoing organisational change. Therefore, although this chapter focuses on SAP FI, it may also, occasionally and when relevant, analyse other technological innovations

As regards other organisational innovations, the industrial benchmarking department (INDBEST) and the Business Processes and Organisation department (BPO) also played a role in the wide organisational change towards the reinforcement of central actors' interests, far beyond the boundaries of the accounting area. The role of other organisational structures, such as centralised logistic structures, also emerged during the study. However, exploring the role of these innovations is left for further research (see section 9.4)

As regards the second type of innovations - rules - new formal rules were introduced, in the accounting area and beyond. This chapter only analyses formal *rules related with, and within the context of, the three above innovations*. I.e., this chapter does not analyse the introduction of particular formal rules *per se* as a particular kind of innovation. This chapter and the next ones give particular prominence to the concept of rules as components of the circuit of social integration, as internal structures orienting actors' behaviours, as accepted rules. I.e., the concern is analysing how rules became accepted and enacted, in the context of the three above innovations.

Therefore, the chapter focuses on the repercussions of the three innovations (SAP FI, the CC and the SSC), and does *not* include an autonomous analysis on the introduction of other technological and organisational innovations and formal rules. These are only mentioned when relevant for the main analysis.

The following Figure 7.1 outlines the overall flow and key message of the chapter. It is acknowledged that the figure does not depict every single aspect analysed in this chapter, let alone in the entire case study. Moreover, the integrative nature of the adopted model, as well as the non-linear, contingent interrelations and ‘repercussions’ (instead of linear, unidirectional causality relations) characterising organisations, imply that any graphic representation will be incomplete. At the same time, the figure already contains a high number of elements and relations and may be considered as excessively complex. However, the figure depicts the main features of a rather large chapter, and the complexity of the representation merely mirrors the complexity of the represented processes (Clegg, 1989) (actually, only a part of that complexity). The figure is not explained at this stage; instead, it is intended to provide a useful chapter overview and a ‘readers’ guide’, to be referred to as the reader progresses through the more detailed analyses in this chapter.

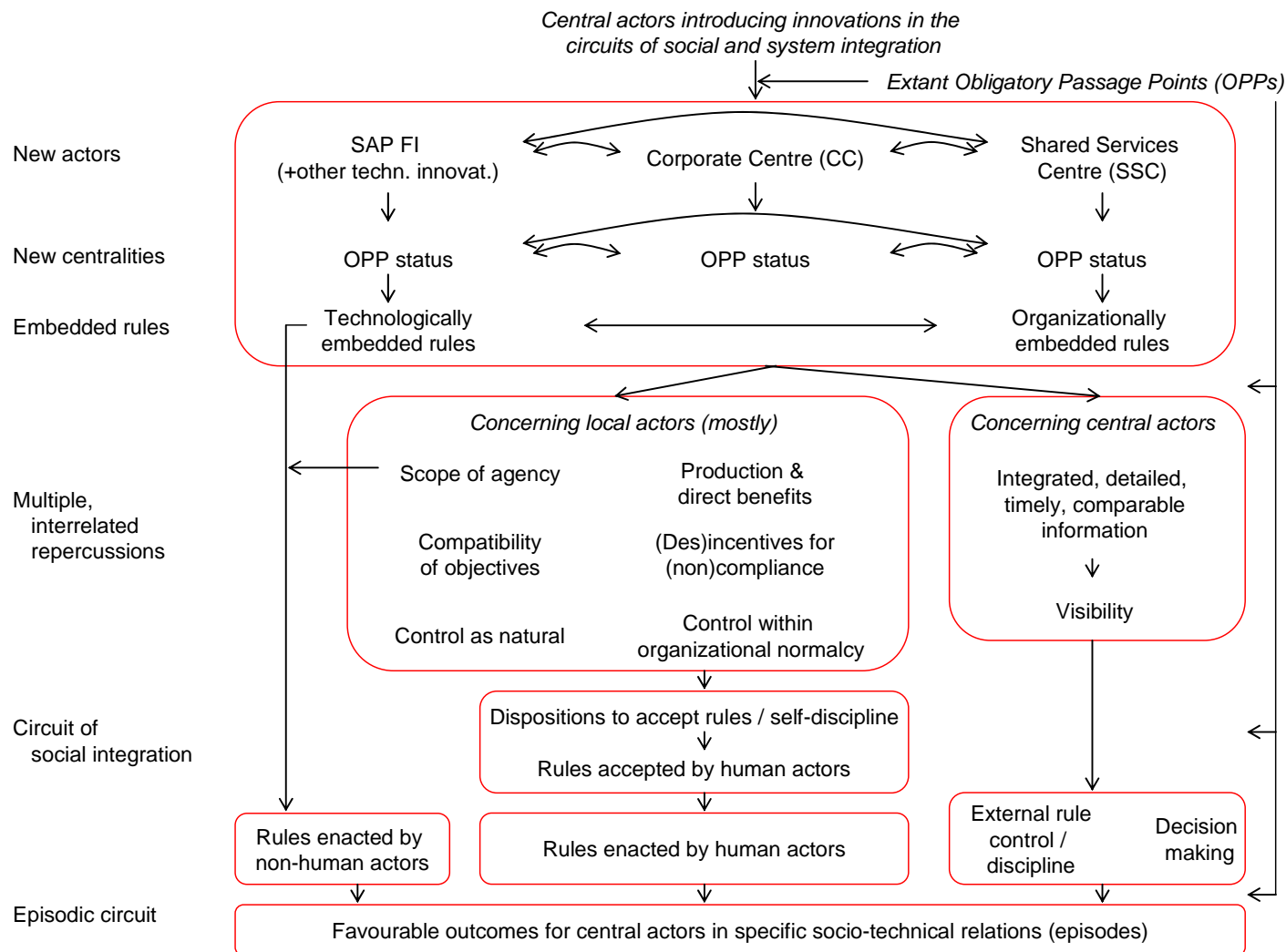


Figure 7.1: Repercussions of innovations introduced by central actors: an overview (Source: Developed by the author)

7.1 THE RECONFIGURED CIRCUIT OF SYSTEM INTEGRATION

This first section analyses how the circuit of system integration was reconfigured after the introduction of the three technological and organisational changes analysed in the previous chapter (SAP FI, the CC and the SSC), and also considering other technological and organisational innovations. These innovations were introduced in the realm of the circuit of system integration, potentially affecting the power that flows through this circuit and producing repercussions at an episodic level.

The following figure 7.2 is an adapted extract from Clegg's framework (figure 3.3, depicting the main components and relations discussed in the current section, in order to enhance the empirical and theoretical foci and outcomes.

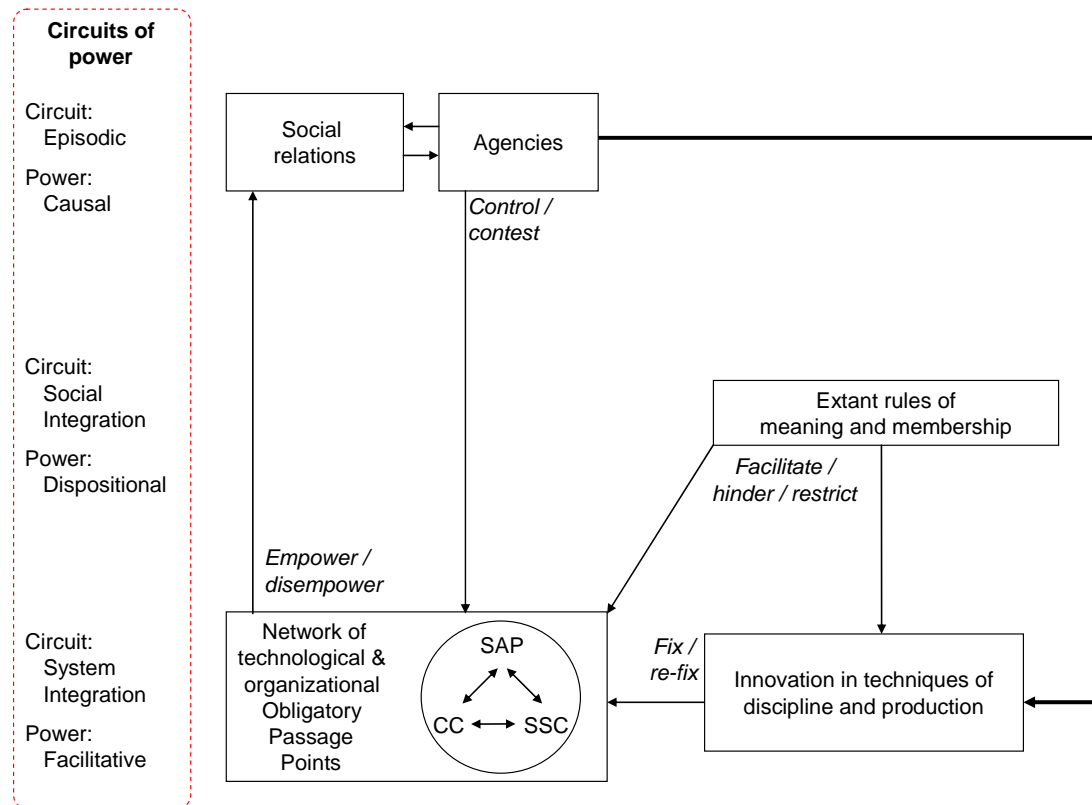


Figure 7.2: Technological and organisational innovations and the reconfiguration of the circuit of system integration in IndCo (Source: adapted extract from Clegg's framework)

In line with the adopted research focus, explained above, this section analyses how the three innovations became Obligatory Passage Points, structurally reconfiguring the circuit of system integration and, in turn, producing some 'direct' effects in the realm of action, in the episodic *circuit*. The fieldwork highlighted that, after the innovations were introduced, important power shifts eventuated, involving several actors' relational power. However, these shifts were neither immediate, nor linear, nor independent, even if the analysis is restricted to the circuit of system integration alone. Hence, the expression 'repercussions' is typically more adequate than 'effects', as suggested above.

The first subsection analyses the repercussions of SAP FI (and of other technological innovations) in the circuit of system integration. The second subsection then focuses on the repercussions of the CC and the SSC, while also considering the intertwined influence of SAP FI and other organisational and technical innovations. The third subsection presents key contributions, as regards repercussions within the circuit of system integration.

7.1.1 REPERCUSSIONS OF SAP FI (AND OTHER TECHNOLOGICAL INNOVATIONS) IN THE CIRCUIT OF SYSTEM INTEGRATION

The first subsection analyses the repercussions of SAP FI in the circuit of system integration; when appropriate, other technological innovations are also considered (see below). This subsection first analyses repercussions of SAP FI towards achieving central actors' objectives which may be considered relatively 'direct'. Then, it highlights the perception that SAP FI alone was limited in bringing about changes, hence promoting among central actors the perception for the need of additional innovations in the circuit of system integration. The subsection finishes by analysing how developments of other innovations depended on the presence of SAP FI – and, in particular, how the presence or absence of SAP FI influenced the SSC implementation.

The following Figure 7.3 systematises these points:

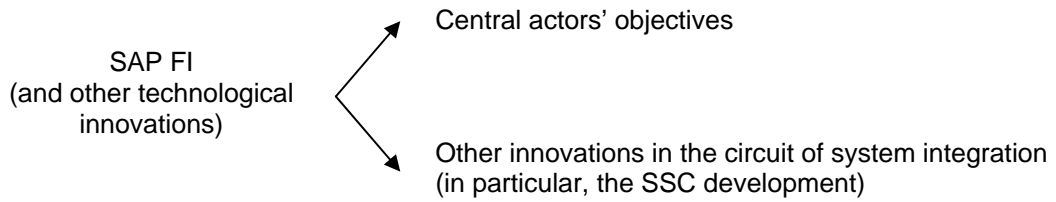


Figure 7.3: Repercussions of SAP FI (and other technological innovations) in the circuit of system integration

7.1.1.1 ‘Direct’ repercussions of SAP FI (and other technological innovations) promoting central actors’ objectives

A preliminary characterisation of ‘direct’ repercussions and benefits for central actors

As analysed in the previous chapter, SAP FI was reconfigured soon after its original implementation. After the remobilisation, SAP FI adopted a parallel accounts solution, based on one common chart of accounts linked with parallel, country-level charts of accounts, based on one single server in Portugal and which could only be changed by a very restricted number of central actors, in Portugal.

SAP FI, and in particular in its remobilised configuration, greatly benefited central actors. A CC manager summarised the achieved “productive” benefits for central actors, mostly from the central vision based on increased information comparability, quality and availability¹, as extracted from the following quote:

[SAP FI] standardised, correctly or incorrectly, but it standardises, it forces to do things in a certain way and to use the systems structures (in this case, the chart of accounts, cost centres, etc.) in a certain way, so that the

¹ Increased information comparability, quality and availability contributed to a greater visibility of central actors over the local sites and the company as a whole. The important benefit of central actors’ visibility is tightly linked with SAP FI. E.g., SAP FI linked other technological solutions, as explained by a consultant: “SAP allowed ‘mapping’ the information between the [consolidated] management component [Hyperion for management] and the operational component of SOIC, through traceability. Showing how the [information] flows passed through SAP. The roads that traversed SAP.” (quote included in section 6.1, p. 377). However, the visibility obtained by central actors also depended on other innovations. As such, the visibility benefit is further analysed in the next subsection.

resulting information has an extraordinarily high degree of comparability. (...) Additionally, consolidation is much clearer, much faster and much more reliable. Intra-group conciliation, which is a consolidation sub-activity, is another nightmare when there are countless fluxes (materials, services...) across the various companies. IndCo has many juridical companies and in the past it had many more. So, to have all this juridical complexity reflected in a system is extremely useful. (...) The system allows (...) to have a central vision, (...) which addresses local needs related to local legal purposes, but that also corresponds to the group needs (...) of consolidated information, quality, available, on-line information. (...) Basically, this was it.”

“Producing” these benefits for central actors required imposing key and structural constraints on local actors. Amongst these constraints, IT-driven and centrally defined impositions were used by central actors to define the scope of human agency, in the dual perspective of defining boundaries of *potential* agency and, conversely, defining boundaries of *excluded* agency.

In particular, the *scope of human agency* was crucially and directly affected by two major areas of SAP mobilisation: 1) *IS fundamental architectural alternatives* and the *definition of user profiles*; and 2) the *automated enactment of rules, embedded within SAP*. These structural constraints became set, and fixed, in the circuit of system integration, with a relatively ‘direct’ effect on organisational processes and practices. These constraints are now analysed².

IS architectural alternatives and the definition of user profiles

Two examples of IS architectural shifts can be provided. The first, more obvious and fundamental example, occurred when *SAP FI* was adopted as the *single financial*

² This section does *not* examine repercussions of these structural and imperative constraints at the level of actors’ dispositions, based on accepted and enacted rules of meaning and membership. This latter aspect of rules, when *not automatically imposed* by a technological device, is a component of the circuit of social integration, and it is analysed in the next section.

accounting solution for various countries. At that time, SAP FI became the only available tool for local actors to perform transactional financial accounting activities, in the countries where it had been implemented.

The second example is the *(later) adoption of the parallel accounts approach of SAP FI*, based on a single database in a single server, in Portugal. It concerns the way the SAP FI package was (re)mobilised and is a less obvious, but more interesting, example. After such change, the only accounts available to local accounting actors to post the transactions were the centrally created ones. This restriction derived from local actors ceasing to have the possibility of changing the structure of local accounts. Contrastingly, such possibility was attributed to central actors (and only a few), under the general policy of trying to reduce accounts creation to a minimum. The following quote from a senior SSC respondent is insightful:

“Should SAP allow for some kind of flexibility in this area (the connection between the common and the local charts of accounts), I guarantee to you that there would be a great confusion in the charts of accounts, because everyone would be changing [their local accounts]... For example, if I changed an account of the local chart of accounts in the middle of the year, the history would be lost... It would be a complete confusion. In addition, even with that lack of flexibility (which for us is a guarantee in that regard), there are only five or six people who can create accounts. No one at country level can create accounts, for example. (...) To ensure consistency [between the various charts of accounts], the system [SAP FI] is not enough, we really had to set restrictions as regards [user] profiles.”

This quote highlighted the *intersection of IT structural issues* (such as *the type of adopted solution*) and *IT parameterisation issues* (which include *the definition of user profiles*). In the *previously adopted SAP FI solution* (with different databases in each country), it was not feasible to restrict local accounts creation to central actors (see subsection 6.1.4). Therefore, the possibility of creating accounts was attributed to local

actors, granting them a greater scope of human agency. Under the *new* parallel accounts solution, it was still technologically feasible to maintain the policy of attributing that possibility to local actors. However, that possibility was undesired by central actors. Therefore, during the remobilisation of SAP FI, central actors resorted to the definition of user profiles to ensure consistency between the various charts of accounts. The definition of user profiles centrally defined the few (central) actors who could create accounts - and, in particular, the near totality of actors (including all local actors) who could *not* create accounts.

In addition, the definition of user profiles was also applied, e.g., to define who could perform accounting postings in SAP FI. When the responsibility of processing most financial accounting transactions by posting them in SAP FI was attributed to the SSC actors, the actors who remained in the local accounting teams ceased to have such responsibility. The local actors' profile was then changed and such possibility was excluded from their profiles, which were restricted to profiles of analysis.

The definition of user profiles pervades the entire SAP system. It is a key aspect of how SAP is mobilised through its parameterisation. As stated in SAP training material, “[w]hen assigned a role, users are assigned not only the menu, but also the authorizations they require to access the information” (and therefore change the information), “ensuring that the business data is always secure. Authorization profiles are generated according to the activities contained in the role, thus restricting the authorizations of each user in the SAP system to only those activities.” (SAP 2005a, p. 53)

The definition of user profiles were a crucial manifestation of human agency by central actors (through the SAP design and implementation team), by crucially defining boundaries of agency of local actors. As the above discussion made clear, this definition has both a positive perspective (by defining what each actor *can* do in the system) and a negative perspective (by defining what each actor *cannot* do in the system). It defines his/her interaction with the information system and his/her relations with the entire actor-network, when mediated by the information system.

Automated enactment of rules by SAP

SAP allows the automatic application of rules, according to the way SAP is mobilised. Such mobilisation of SAP and the posterior automatic enactment of rules by the SAP actor make these rules virtually unchallengeable by users in their daily operations, whenever certain events (those defined as triggering rules enactment by SAP) do occur.

There are numerous types of possible automations in SAP, but some may have little or no relevance for this analysis. As an example, provided by an IT respondent, before SAP FI implementation, accountants of some units posted intra-group acquisitions of an entire month in one single transaction, adding up the values of all acquisitions, in order to save time. After SAP FI was implemented, new SAP rules were developed to allow the automatic posting of intra-group invoices. Although such development allowed an improved control of invoice posting, the main benefits were characterised as economic, given the time savings and hence higher efficiency (even when compared to the previous expedite solutions). Also not relevant for this research, and for similar reasons, is the type of rules used as a basis to define product costing

parameters for large numbers of products, in an automated way (as described in the quote in p. 493). Hence, although it is clear that central actors were benefited, these types of rules and automation are not the most relevant for this analysis.

From the various types of rules and automations in SAP, the most relevant ones for the present analysis are those which impinge on human agency and on control by central actors. When rules promoting central actors' objectives become embedded in technology and are automatically enacted, the achievement of those objectives does not depend on actions from human actors, but only from the non-human actor SAP - which in IndCo's case had been configured (mobilised) by central actors.

An IT respondent described how SAP operational modules were parameterised with rules to ensure the following of certain sequences of actions.

"We started imposing rules in many (...) areas. We cannot ship, if we don't have an order. In most IS, even in SAP, it's possible to ship without having an order; it's just a matter of parameterisation. I can [theoretically] create an invoice without a shipping order; then, it's just a matter of defining a rule such as 'that invoice will reduce stock'. Even in SAP, all that is possible, it's just a matter of setting the parameters to make it like that.

But we, from the start – so, it is already a culture-, say 'no order, no production'. 'No order, you cannot ship'. 'No shipping order, you cannot invoice'. We have all those blockages... (...) We brought [into SAP] the rules we had in [the legacy logistic solution] SOIC, so that there is, in fact, discipline. I cannot produce something which doesn't have a defined product code. You cannot. If you do produce, it is completely beyond procedures and you cannot perform any administrative task on that.

So, likewise, we applied the same method to the costing [module]; otherwise, there will be leaks all over the place. (...) [The definition of] costing is as important as the product itself. If there is no costing rule, then it won't be produced. The system doesn't even accept the order. (...) All this is based on rules."

Two central actors, in the context of the CC and SSC's on-going efforts to standardise processes, both in the financial and non-financial areas, also commented about the implementation and operation of SAP Product Costing (SAP CO-PC) module (but which could also be applicable to SAP FI and SAP in general):

Respondent #1: *“SAP will help us, because it is going to parameterise things which, from then onwards, it will not be possible to change. (...) [It will ensure that] rules about the transfer of raw materials or products, between group companies or plants, are fully complied. (...) When things are automated, no one has to manually apply a rule. The rule is established, it is in the system, there is no need of interfaces, the information flows naturally.*

Respondent #2: *We try to have the systems are parameterised and automated as much as possible, so that there is not much deviation from what we (...) think that should be done. And that is an essential factor towards which we must always work, because as we implement SAP (the logistic modules are still being rolled-out to various countries), we realise that in each country, and even within each country, there are different requests from one plant to another (...). Even as regards accounting, we have the experience that, e.g., in Spain, the way to post transactions in one plant was not the same as in another. And that happens, not only in financial accounting, but also as regards stocks, products transfers, etc.. Therefore, we try to automate whatever we can, not only to try to ensure consistency, but also, logically, to avoid having people doing more manual activities.”*

Obviously, respondent #1's comment that automation eliminates the *need* to manually enact a rule, also means that no human actor has the *possibility* to enact a certain rule. Moreover, and importantly, no human actor has the possibility *not to enact* a certain rule, or enact it according to an *interpretation* diverging from the interpretation intended by the actors mobilising SAP. This has theoretical consequences, since, in such a context of full automation, such as the automatic application of given transfer prices, SAP FI becomes a device (actually, a non-human actor) *disciplining the process*, rather than a device disciplining *human actors*. In fact, the issue of actors' discipline only emerges when the possibility of non-compliance exists – a possibility which, *prima*

facie, arguably does not exist *in the parts* of the processes which are fully automated and in which users do not intervene. In this case, by the disappearance of human agency *at the time of the usage* of the system during ordinary business operation, the possibility of non-compliance is eliminated. This is another extreme example of fixity in the circuit of system integration.

The lack of the possibility of non-compliance through the elimination of human agency at the time of the usage of the system can be considered to be a case of extreme force, rather than power, as described by Bachrach and Baratz (1963) (see footnote 14 in subsection 3.2.3). These authors illustrated their concept of force with, e.g., the killing of a person to obtain a wallet. In this case, SAP's automation eliminated the human actor (the user) from a particular part of the process, i.e., it *eliminated the human actor from the network* of intervening actors. A potentially *discretionary intervention* of the human actor (the user) was *replaced by automatic rule enactment* by the *non-human actor* (SAP).

Other constraints on human agency during the daily usage of the system, imposed by definitions of automatic controls in IT-supported process, are more nuanced. For example, should certain pre-defined conditions occur, SAP's automatic enactment of embedded rules may automatically remove the possibility of human agency to certain actors, and attribute it to other actors. The following example concerns the enactment of a rule about the control of the outstanding debt of each client, based on various SAP modules (the control rule is defined in SAP SD sales and distribution module and draws information from SAP FI). A senior manager contrasted the greater, *ex-ante* control of credit limits through automatic, systems-triggered blockages of workflows, with the previous *ad hoc* and *ex-post* controls:

Respondent: “If the credit limit of that client (...) [has been taken], the order is halted right when it is entered [in SAP]. There are some control mechanisms which can be established in an automatic way. The commercial area is always one of those which worry us the most. (...) We define a certain credit limit to the clients and it should not be exceeded. How can we do it? In the old days, before we had the system, it was ad hoc. So, only the internal audit could, every now and then, say ‘Hey!...’.

Researcher: A posteriori.

Respondent: A posteriori. After the risk had been taken. (...) While now... of course that is still possible [to exceed the limit]...

Researcher: But someone has to authorise it.

Respondent: Someone has to take that responsibility. It’s not the person entering the order who, unknowingly, can create conditions for customer risk to be taken.

Researcher: Without knowing, or opting not to follow what had been defined

Respondent: Yes [laughter]. (...) We don’t stop the operations. [Now], there is a person who took that responsibility, and not... [sigh, in an excusing way] ‘It was the system [that allowed it]!’” [laughter]

Rules may therefore become embedded in IT-supported processes. This is tightly related with the conceptualisation of routines technological embeddedness, as proposed by critical realism theorists such as Volkoff *et al.* (2007), introduced in section 2.2. This perspective is now recalled and further discussed.

Embedding rules in technology: the material dimension of rules

Technological embeddedness³ was focused on Volkoff *et al.*’s (2007) study on intra-organisational change, drawing from Feldman and Pentland’s (2003) dimensions

³ The term ‘embeddedness’ has several meanings. Within institutional theory perspective, ‘embeddedness’ may refer to how individuals may be deeply influenced by their institutional environment, in which they are ‘embedded’ (see section 2.4 for a brief mention). Granovetter (1985 and 1992) adopted the term to refer to individuals’ relations and positioning within social networks and how their ‘embeddedness’ affects their behaviour. This chapter uses ‘embeddedness’ in two alternative senses. The term is now used to convey the ‘embedding’ of rules in technology. Later in this section (p. 523), ‘embeddedness’ is used in the ANT perspective of how an actor is ‘embedded’ in a wider actor-network and wider processes of control (approaching Granovetter’s sense, although in an ANT framework).

of ostensive and performative routines and adding the material dimension (see section 2.2). In particular, they focused on how the organisational elements of *routines*, *roles* and *data* may be structurally embedded in IT devices and hence achieve a material dimension. Spillane (2005) argued that Feldman and Pentland's (2003) ostensive and performative dimensions can be applied beyond routines, and so can the material dimension (e.g., Volkoff *et al.* applied them to routines, roles and data). This work now applies those dimensions, and in particular the material dimension, to *rules*.

As already argued, Volkoff *et al.*'s discussion on routines is actually about organisational *rules* – even though they do not use the word 'rule'. They noted (as already quoted) that “[o]rganizational routines are embedded in the ES [Enterprise System] in the form of system-executed transactions - sets of explicitly defined steps that require specific data inputs to automatically generate specific outcomes” (p. 839). This quote clarifies that they are referring to *rules* intended to define transactions and their sequence – i.e., *transactional rules*.

In addition to routines, Volkoff *et al.* also analysed *roles*. Roles may be considered as particular types of *rules*: the definition of what each actor is expected to do (and not to do) may be considered as a particular type of rule, concerning actors' expected behaviour and contribution – *behavioural rules*. Therefore, the ensuing analysis encapsulates Volkoff *et al.*'s concepts of 'routines' (as transactional rules) and roles (as behavioural rules) in a wide conception of *rules*⁴. The separate concepts of transactional rules or behavioural rules are used when appropriate.

⁴ *Data*, the third organisational element identified by Volkoff *et al.*, is not explored here, since data are not closely related with rules. Nevertheless, their insights about the embeddedness of data in IS are also substantially endorsed by this case study.

Volkoff *et al.*'s concept of technological embeddedness (e.g., in ERPs) is particularly insightful to conceptualise the above case discussion. Following their discussion, coding a (transactional) rule in the ERP changes the way that rule can be enacted, and defining the roles associated with a particular user profile changes what the actors with such profile can do, their scope of human agency.

In the above case discussion, embedding rules (including the definition of user profiles) in SAP represented the “materialisation” of organisational rules in IndCo. Since in daily interactions SAP automatically applied the (transactional) rules and enforced the restrictions implicit to user profiles, “there are no choices to be made” by human actors (Volkoff *et al.*, p. 840). These effects, which represent the enactment of rules by the non-human actor SAP, are considered as “‘direct’ repercussions” or, adopting Volkoff *et al.*'s terminology, “first-order effects”.⁵

Technological embeddedness: a structural extension (and restriction) of human agency in time and space

Even though the above discussion highlighted restrictions or elimination of human agency, it should be noted that human agency is still very much present in those constraints. In some cases, human agency may have been removed (or, in less extreme cases, restricted) from the ‘live’ stage, in which SAP automatically bars access to accounts creation or applies rules and performs operations. However, human agency is still present during SAP's implementation stage. In fact, the definition of user profiles

⁵ As mentioned above, this section only examines rules (including those associated with user profiles) embedded in, and automatically enacted by, the non-human actor SAP; it does not examine repercussions at the level of actors' dispositions, based on accepted rules of meaning and membership. In Volkoff *et al.*'s framework, repercussions on organisational elements such as control and mindset are “second-order effects”; in Clegg's framework, they are a component of the circuit of social integration, and they are analysed in the next section.

and the actual extent and scope of automation of the implemented system largely derives from the decisions and actions of human actors who mobilised the SAP package at its implementation stage.

This is in line with Volkoff *et al.*'s proposed three cycles of social change, based on Critical Realism (Archer, 1995). Decisions and definitions during the design and implementation stage (*human agency* by central actors) created a *structural conditioning* (the first cycle) to how local actors were able to use the system, during current, *post go-live social interactions* (the second cycle). The third cycle, of *structural elaboration / reproduction*, occurred when central actors, at certain instances, remobilised the system in order to change or reinforce previously defined features (e.g., shifting to a parallel accounting solution or defining user profiles), and whenever they kept those features unchanged, hence prolonging their effects on social interactions.

Therefore, the embeddedness of rules in the system is not purely technological, and has a time dimension. This technological embeddedness reflects prior *human agency* by central actors, at the previous design stage of SAP. Human agency of central actors was extended in time (and space) through the way they mobilised, remobilised and preserved the system structural definitions, hence shaping the technological embeddedness that would later constrain local actors' agency in their interactions with the system and other actors.

Still based on Archer (1998b), Volkoff *et al.* argued that "[w]hile social interaction is continuous, at any moment the emergent structure depends on past activities, not on the actions of current agents. Agents in turn are shaped and reshaped as they engage with the structures they confront, but did not create" (p. 835). However,

this argument is now nuanced by two additional insights: 1) as regards the *identification of actors shaping those structures*; and 2) as regards the *time dimension* of these cycles of social change.

The first insight, about the *identification of actors shaping the structures*, is introduced by the following quotation of an IT manager:

“The project [of implementing the costing module] was fundamentally to define the BOMs, the Bills of Materials⁶. Of dozens of thousands of products; in each plant, many thousands. Define the rules of the BOMs - which, when we try to know precisely, no one knows. The plant controller knows a few things, but then, e.g., as regards the efficiency of [raw material X], the person who knows is the machine operator; and as regards another raw material, another person [knows it]. (...) In addition, there are special, customised products, (...) and we are not going to have a separate sheet for each order; (...) there is a huge number of rules, but it’s not easy to define those BOMs.

There is not one single person who knows everything. There may be a person centralising this, ensuring that the BOMs are correct (...) and defining the BOMs rules of valuation. The plant controller should be the pivot to define all those BOMs – even if he doesn’t know everything (...). He should be; we want them to be. (...) Those are our difficulties. Who feeds and updates that information? The production planner doesn’t care at all about this, (...) about costs. (...) His task is to plan. The machine operator doesn’t care about this, either. So, theoretically, it should be the plant controller. (...)

We have a rather agile system, but we need to define rules. And then we enter another problematic. On one side, it is far more sophisticated, it’s based on rules [so, it avoids the work of manually defining a BOM for each new or customised product]. [But] defining such BOMs is not accessible to anyone, they are already mathematical rules.”⁷

⁶ “A bill of material (BOM) is a list of the components used in an assembly or product” (SAP 2006, p. 151). “When the complete master data (BOMs and routings) is available in the system, you can create a Material Cost Estimate with Quantity Structure, which automatically calculate the cost of goods manufactured and cost of goods sold from data existing in logistics applications” (SAP 2005c, p. 5). In IndCo, after the implementation of the Product Costing module, the BOMs of all products had to be revised, not only to include cost information, but also to include materials which were previously missing because they were not relevant for production planning.

⁷ As mentioned above, this type of rules, and the type of automation they support (automated costing of products), is different from those rules and automations which are of most interest for this research, since it does not have theoretically significant repercussions in terms of human agency. Given the huge number of BOMs to be defined, the usage of this type of rules is largely an inevitability, to ensure a reasonably

The first insight nuances the overriding image conveyed so far, that described the central actors as those with the possibility to structurally shape the material aspect by configuring the system - hence attributing them exclusive agency at the configuration stage. On the contrary, the above quote shows that such parameterisation also depends on the input (knowledge and action) from local actors. In addition, local actors (in particular, plant controllers) may also be those who check whether the extant parameterisation still remains valid, and, if not, trigger the reconfiguration process of the system.

It should be acknowledged that such agency of local actors is constrained, since they do not have complete freedom to change BOMs. In fact, this agency of local actors is framed into a wider aspect of the *very existence* of the BOMs and the SAP product costing module - which was introduced by central actors and was expected to bring significant benefits to them. Significantly, one of those benefits was a greater central visibility and control of cost accounting practices at a plant level, attempting to overcome possible distortions at this level.

However, it can be concluded that the human agency which structurally conditions organisational life is not, in fact, an exclusive of central actors. Moreover, it introduces the first nuance to Volkoff *et al.*'s characterisation that "at any moment the emergent structure depends on past activities, not on the actions of current agents. Agents in turn are shaped and reshaped as they engage with the structures they confront, but did not create" (p. 835). Human agency structurally conditioning organisational life

accurate costing and to avoid the inordinate costs of manual, product-by-product costing (which is, anyway, virtually impracticable, given the huge number of products and the daily creation of new products). It should be noted, however, that human agency is still present, e.g., at the stage of defining those rules and, importantly, in the more fundamental decision to adopt a reasonably accurate product costing system.

may be dispersed across various actors; therefore, *some actors may be both constrained actors and change agents as regards a given structure.*

The second insight concerns the temporal dimension of Volkoff *et al.*'s argument (a crucial aspect in Volkoff *et al.*'s critical realist framework), and nuances the clear and absolute separation of the three cycles of social change described above. The same actor [e.g., the plant controller] who, during his continuous social interactions, is constrained by the structures to which he himself contributed, can also monitor in a continuous way the adequacy of such structures and, if adequate, can trigger the process of changing the parameters.

The empirical insights do not challenge the fundamental notion that “[w]hile social interaction is continuous, at any moment the emergent structure depends on past activities” (Volkoff *et al.*, p. 835). It is also true that Volkoff *et al.* did *not* claim the infrequency (let alone rarity) of the cycle of structural elaboration/reproduction, “the modification of previous structural properties and the introduction of new ones or the reinforcing of existing structures” (p. 835). Indeed, they noted that temporal cycles may differ across different elements: for example, the temporal cycles of roles (behavioural rules) may be shorter, since they are embedded in technology merely through the parameterisation of authorisations. In the empirical examples above, what was at stake was the parameterisation of SAP, and in particular at a low level.

However, the empirical insights suggest that this cycle of structural elaboration/reproduction may be much less episodic and intermittent than it might be anticipated, *as regards certain actors* (in situations similar to the plant controllers in IndCo) and *as regards certain technological aspects* (not major changes in structures,

but typically minor adjustments)⁸. *As regards such actors*, the first cycle, structural *conditioning*, may be considered almost continuous - even approaching the structuralist conception of technology being “interpretive flexible” (Orlikowski 1992, p. 405), although not to the extent of being only “enacted and defined at the moment of use” (Volkoff *et al.*, p. 834). And even the third cycle, structural *elaboration / reproduction*, may be best conceived (again, *as regards certain actors*) as a potentially frequent event.

Therefore, the last sentence analysing the first insight (that “some actors may be both constrained actors and change agents as regards a given structure”, in page 495 above) can be complemented by the inclusion of a time dimension: some actors may be both change agents (*in the present or in the future*) and constrained actors (*in the past or in the present*) as regards a given structure.

The remaining chapter discusses additional ways in which human agency is influenced by SAP and other technological and organisational innovations, in more direct or indirect ways, and directly upon the episodic circuit or through the circuit of social integration. For now, it can be concluded that *SAP increasingly became an Obligatory Passage Point*, within the circuit of system integration, *by becoming the sole solution* for local actors to perform financial activities and *by automatically enacting embedded rules*, directly affecting the scope of agency of human actors.

⁸ Even within a particular technology, such as an ERP from the SAP vendor, there is a need to be specific about which aspects of that technology are at stake. This extends Volkoff *et al.*’s call to avoid treating “technology (...) as a unitary object, ignoring each technology’s distinctive characteristics” (p. 832), bringing this concern to an *intra-technological level*. Not all structures of a given technology are alike. Different structural features of a given technology (e.g., SAP) have hugely different degrees of flexibility (Dechow and Mouritsen, 2005), as empirical insights (beyond the scope of this thesis) also documented. In addition, higher level configurations may dictate that some actors may change some lower level configurations, but not others.

7.1.1.2 SAP FI achievements and limitations, and other innovations in the circuit of system integration

The implementation of SAP FI did not, *by itself*, imply fundamental additional changes in organisational processes or structures (such as, for example, a centralisation in an SSC). In fact, as already described, the SAP FI project had a narrow, technical scope (implementing the SAP FI package), and excluded broad organisational changes. The absence of a technological imperative of organisational changes, potentially derived from SAP FI as a non-human actor, was made clear by an IT respondent⁹:

“We could [implement SAP FI and] keep [the organisational processes and structures] unchanged: the invoices [could] continue to go [physically to the local sites], continue to [physically] go to the management of each countries [for approval], etc., etc.. And, I say it again, that’s what we [initially] did.”

However, *although there was no technological imperative* emerging from SAP FI, there were *two important links* within the circuit of system integration.

First, SAP FI *alone*, as a technological device, even after being remobilised, was still perceived to be *insufficient* to provide timely and fully comparable information across the companies, as argued in the previous chapter (and further below) when analysing the reasons for the creation of the SSC. This insufficiency of SAP also derived from the circuit of social integration. SAP FI had become an Obligatory Passage Point for actors involved with financial accounting, but, from the perspective of key central actors, it was not totally effective, or “productive”, in the two senses of “productive” discussed in section 3.3. In the mainstream sense, SAP FI did not *produce*

⁹ See a related quote on subsection 6.1.6, in page 416, in which a consultant argued how SAP, as a ‘modern’ technical device, may be used as a justification for particular actors to promote organisational changes.

the information with the ideal standards supporting the desired central vision. And, in the Foucauldian sense (reflected in the circuit of social integration analysed in the next section), SAP FI did not *produce* sufficient changes in local actors' rules and therefore did not '*produce*' actors with dispositions aligned with the objectives and needs of some central actors. SAP FI did not subject the local actors to all the requirements of central actors, and therefore did not '*produce*' the subjects that those central actors desired. This perception by key central actors was an important driver to the creation of an SSC, a new collective actor and an organisational innovation in the circuit of system integration. As a senior manager summarised,

"The SSC was an additional step, because we concluded that SAP FI was not enough, we had to go further than that."

Therefore, purposeful decisions of human actors based on perceptions of limitations of SAP FI as a technological tool, rather than technological imperatives derived from SAP FI itself, were the basis for the introduction of an additional innovation in the circuit of system integration: the SSC.

The second link of SAP FI within the circuit of system integration was that, in spite of the limitations described above, SAP FI was a crucial support to the CC and the SSC, in two areas. First, the clearest and most straightforward area concerned the provision of financial information which those two actors (as collective actors) and various key central actors needed for their day-to-day functioning. Second, SAP FI was important in a less obvious way, which raises relevant theoretical issues: SAP FI was important regarding the creation, implementation and development of those collective actors, in particular the SSC. This SAP FI crucial role is analysed next.

7.1.1.3 Dependencies of development: the presence (or absence) of SAP FI influencing the SSC and CC implementation

The fieldwork highlighted how the implementation of both the SSC and the CC significantly depended on SAP FI. The analysis of the CC relocation, in the previous chapter, already revealed that CC development was also dependent on SAP FI, and this chapter adds reinforcing insights¹⁰. However, the fieldwork did not deepen such line of research, since the SSC emerged as a more theoretically interesting domain of analysis. Therefore, the analysis below focuses on the SSC, rather than the CC.

A CC manager thus described the importance of SAP FI to the SSC:

“Obviously, the SSC was only possible given the financial project in the accounting area, which is homogeneous, it’s all inside the same machine [server], it’s all centrally accessible.”

It is significant to further explore the importance of SAP FI as regards the SSC’s implementation stage (more than the SSC’s current operations stage, an importance related with the production of information, which is a more obvious aspect and does not require further analysis). The SSC *implementation* was highly dependent on the underlying and supporting information system. It is significant, for example, that the country where greenfield operations started in mid-1990’s was the only one not included within the SSC scope, until the time of the fieldwork: not only that country was geographically isolated from other units and far from the SSC location (Portugal), but, fundamentally, it was the only country which had not adopted SAP.

¹⁰ CC dependency on SAP FI is also suggested by an *a contrario* reasoning of a quote on page 527, about the great difficulties encountered by the emerging CC before SAP FI was implemented. This quote is here summarised: “[the recently created] corporate centre (...) finds things [solutions] scattered all over the place. It has no tools, so it is urgent to have tools.”. This suggests that should a common financial accounting system (SAP FI, or a similar system) continue *not* to exist, the CC contribution and development would be reduced.

The dependency of the SSC on SAP FI was not only *technical*, but it was also related with *organisational* and control issues. An IT respondent reflected on IndCo's positive and negative experiences in the migration of accounting activities of the various countries to the SSC. He clearly related those experiences with the previous existence (or absence) of SAP FI, as a common information system. The particular case of country C migration to the SSC has already been analysed in subsection 6.3.2 (see the third stage of the process). This respondent thus commented migration processes, both in general and regarding this country:

“We started feeling that it was impossible to set up an SSC and consolidate and actually control the operations, without having a common information system. (...) From the information systems point of view, we already had that strategy, regardless of the SSC. (...)”

[But] the SSC started by [country C], precisely the country which was not integrated yet [in SAP FI]. And it was a disaster! (...) [In country C,] we had to make a rushed integration. Because the SSC had timings. It was the first company to be migrated. Why? (...) Because [local] people started feeling that there was the SSC project and started quitting. (...) The SSC had to start by [country C] because it had no more people there [in the accounting area]; [almost only] the managers remained. (...)”

Those [organisational] integrations are extremely complicated. Either we have instruments to support things... [or it's very difficult]. In my view, [the migration to the SSC in country C] had to be by 'making blood'. Had to be by 'making blood'.”

In country C, local people massively left the organisation, in about a month. This organisational urgency pushed the organisational change (the migration of the accounting activities) to precede the technological change (the implementation of the common information system). This lack of a technological infrastructure was a

weakness in the circuit of system integration, which had to be compensated by massive, episodic efforts¹¹.

In another country, the local team also quickly left the organisation, requiring an earlier than planned migration to the SSC. However, since SAP FI had already been implemented (this country was among the first three adopting SAP FI), the migration process was less problematic. The same respondent thus commented, at a more general level:

“In the other countries, it was easier. Why? Because they already had the same system. Should [local] people leave, we already have the same accounting system, (...) there are [other] resources [at the centre] which remain. We still manage the processes, because there are people [at the centre, at least from an IT point of view] who know something, the information system is the same, etc., etc.. (...)”¹²

If those problems [of local people leaving] had occurred [in all the countries] and each country had its own accounting system, (...) it would have been a disaster. I think we would have completely lost control.”

The particular, reiterated expression of this interviewee (“*had to be by making blood, had to be by making blood*”) invokes Foucault’s (1975/1977) description of the disciplinary mechanisms used in Europe until the eighteenth century, relying on excessive usage of violent means to punish in name of the sovereign power (see the literally bloody episodes described at the start of Foucault, 1975/1977). However, the circumstances and the objectives (and means!) in IndCo were totally different. In the

¹¹ Additional factors either aggravated or lessened the effects of this technical weakness. Various interviewees indicated that the lack of accounting and SAP knowledge of the actors who implemented this first migration aggravated the problems created by the lack of a common solution (see subsection 6.3.2, as regards the third stage of the migration process). However, the accumulated experience of the CC helped to compensate, as argued below, in providing an additional supporting structure. Overall, the fieldwork insights suggest that the existence of additional factors does not challenge the relevance of the described technical weakness (the lack of a common IS).

¹² Another IT interviewee corroborated that “[i]n the back-office, system know-how [already] existed. Then, you only needed to fine-tune some particularities of each country, but you always had a support”.

eighteenth-century Europe, the violent punishment was also a ritual to re-establish power and hence a basic condition of the system to keep the sovereign power (Legrand, 2005). Quite in contrast, in IndCo, the metaphor of a “bloody” migration represented not only the high resistance encountered, but also the high efforts which had to be made, in an episodic way, to compensate the structural weaknesses at that particular space and time. In IndCo, it was an *ad hoc* measure of last resort for that particular problem - quite unlike the basic and structural way of exercising and keeping sovereign power in the eighteenth-century.

Based on IndCo’s experience, the same respondent then generalised how implementing a new, common IS, previous to a centralisation process, can be crucial to support that process due to a lower resistance. In fact, should a new IS be at stake, it can be perceived as ‘more advanced and modern’ than the previous one, and therefore actors may perceive that change as ‘natural’, as ‘progress’. The new, common IS may be considered as “something one cannot be against (Hansen and Mouritsen, 1999) for they present an appeal which is difficult to resist and thus they do seem ‘imperatives’ no one can oppose” (Busco *et al.*, 2007, p. 130; also Quattrone and Hopper, 2006). The implementation of a new information system is far more likely to face less resistance than an organisational change such as the migration to the SSC, which profoundly affects local actors, to the extent of drastically reducing the local teams.

Respondent: *“I’d say that in a [profound] transformation process like this, the IS must be installed first, and then those organisational change processes can be made. (...) It’s a controversial topic. (...) To uniformise IS, there are obviously reengineering processes (...) – although accounting is almost the same in all the countries, with [just] some specificities (...). I need to have a single model, and then I need to have an alternative chart of accounts, more detail in the accounts [structure]... for all the countries. But I do it with the help of the [local] people from each country. With the participation and the know-how of the accounting area of each country. A*

process which people easily accept. Their job is not at stake. “Here is a good solution, better than the previous one”. It’s a natural process. “Yes, we are going to consolidate and place the information system in a [single] server”. That’s what we did.

Researcher: *Without the traumatic charge of creating an SSC simultaneously.*

Respondent: *Exactly. And then, afterwards, comes the optimisation of processes [through the migration to an SSC]”*

A final quotation of the same respondent reinforces the importance of securing the control of the organisational change process, in a structural way.

“Very often, the problem is not about spending money. If it were a problem of spending money, I could say ‘I’m going to invest, in the first year I will even double the teams. That’s part of the plan: I will spend more money in the first ‘x’ years, but I’ll recover it later on’. As any investment. The problem is whether I can, in fact, control [the migration process]. [Ensure] that the know-how does not disappear.”

Therefore, the *previous* allocation of resources to implement SAP FI (financial, human, technical resources) provided a structural device, an additional resource structurally promoting the introduction of the SSC and the objectives of central actors. It increased the control of the process by central actors, to a level which would most likely not be achieved if central actors could only resort to episodic exercises of power, but without the structural support of SAP FI.

These insights highlighted the limitations of the mere control of resources and their *episodic* allocation and deployment to attempt to overcome, on a one-off basis and in particular instances of social interactions, the problems and resistance which could emerge (and did emerge) across the countries – as stressed by Ribeiro (2003), in line with Clegg (1989) and Clegg *et al.* (2006).

Reframing these alternative mechanisms in the original Foucauldian thoughts, the main problem was not so much about an excessive and inefficient use of resources, but rather its lack of effectiveness. Therefore, the *previous* allocation of resources to implement SAP FI attributed to central actors a power which was “more regular, effective, more constant and more detailed in its effects; in short, (...) increase its effects while diminishing its economic costs (...) and its political costs” (Foucault 1975/1977, p. 80) (quote already included in section 3.3).

This subsection analysed how SAP FI influenced the circuit of system integration and, in a direct or indirect way, the relational power of actors. It exemplified and discussed the importance of technological embeddedness, drawing on Volkoff *et al.* (2007). Rules acquired a material dimension when embedded in SAP FI by human actors, creating a structural conditioning. Then, during social interactions, SAP FI automatically enacted those rules, hence structurally extending the influence of certain human agencies, while constraining or even limiting other human agencies. And subsequent structural elaboration/reproduction followed. This conceptualisation is further developed later in this chapter. This subsection analysed some achievements of SAP FI, but also some of its limitations, even after being remobilised, to fully achieve some objectives of key central actors. Finally, this subsection analysed how SAP FI influenced the CC and the SSC organisational innovations. The next subsection now focuses on the repercussions of the CC and the SSC (as well as SAP FI) in the circuit of system integration.

7.1.2 REPERCUSSIONS OF THE CC AND THE SSC (AND SAP FI) IN THE CIRCUIT OF SYSTEM INTEGRATION

The ensuing analysis focuses on the repercussions of the CC and the SSC towards achieving central actors' objectives. Such analysis must also include SAP FI (and other technological innovations, to be consistent with the option taken in this section), given the intertwined creation, development, operation and repercussions of these innovations. It also analyses the repercussions of these innovations, introduced in the circuit of system integration, on this very same circuit. It argues that these innovations became complementary obligatory passage points, and it explores how the CC and the SSC contributed to the development of SAP FI. The following Figure 7.4 broadly systematises the main issues. For simplicity, the figure includes only SAP FI as a technological innovation, although others are also mentioned during the analysis.

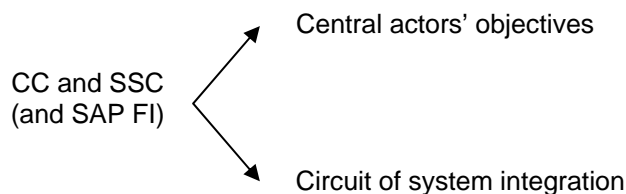


Figure 7.4: Repercussions of the CC and the SSC (and SAP FI, as well as other technological innovations) in the circuit of system integration

7.1.2.1 'Direct' repercussions of the CC and the SSC (and SAP FI) in the circuit of system integration, promoting central actors' objectives

A preliminary characterisation of 'direct' repercussions

Similar to the above analysis of the repercussions of SAP FI, there are repercussions of the CC and the SSC which are relatively linear and straightforward – although always highly related with technological innovations, among which SAP FI is

paramount. For this reason, the analyses in the previous subsection about technological innovations are also pertinent for the ensuing analysis of the network constituted by the various innovations.

The most linear and straightforward analysis is that the CC and the SSC both represented new organisational structures, new collective actors with explicitly group-wide concerns, achieving group-wide cost efficiencies and producing information and insights (including for control purposes) which are crucial for central actors - including key actor Mr. A.

In a preliminary note, it should be noted that there is an obvious *recurrence* in the previous analysis, since each of these collective actors are among the central actors which greatly benefited from the produced information and insights. As mere examples, the CC receives from the SSC more timely and better quality financial information for consolidation analyses; and at times the SSC resorts to the CC's formal authority to solve specific conflicts with local teams about accounting issues. Indeed, this recurrence is not at all a contradiction. On the contrary, this recurrence adds to, and strengthens, other insights about the *mutual complementarity between the various elements of the circuit of system integration* – an insight further explored in this chapter.

The label of 'direct' repercussions does not mean that they are insignificant. On the contrary, not only they are empirically relevant, but also *two significant theoretical contributions* can be derived from the introduction of these innovations in the circuit of system integration: the *constitutive role of the organisational fabric* by these innovations; and the *various potential effects of 'visibility'*, even only considering the circuit of system integration. Each one is separately analysed next.

The constitutive role of the organisational fabric by these innovations

The first significant contribution is that innovations in the circuit of system integration may have a *constitutive role* in terms of the social, legal and technological fabric of organisations. The creation of the SSC represented the emergence of new central actors (the collective actor of the SSC and the individual actors working there) and was accompanied by a drastic reduction of the size (almost elimination) of the local teams of the accounting area. In fact, this emergence of new central actors and almost elimination of local actors of the accounting area means that the circuit of system integration *may also define and constitute the very social, legal and technological fabric* across which power flows and tensions potentially emerge, develop and are solved.

This has important consequences, not only for the analysis of power, but also for analyses on *institutional theory* topics. *The empirical setting is not a given*. We do not simply have “diverse actors who enact, inhabit and reproduce [a given] social arrangement” (Seo and Creed, 2002, p. 229). The *very fabric of the organisation*, the set of actors (human and non-human, individual and collective) and *their relative position* within the actor-network (including their physical location) is itself under *permanent revision*, in particular through innovations in the circuit of system integration.

‘Visibility’ effects in the circuit of system integration

The second significant contribution concerns the greater *visibility* that these innovations (in particular, SAP FI in its intertwined relation with the CC and the SSC) granted to central actors, generally. Again, although relatively ‘direct’, this repercussion also allows theoretical developments. Central actors’ increased visibility had two main

effects in the circuit of system integration: *disciplinary effects* derived from monitoring (analysed next); and *improved decision making* (analysed below in p. 511).

Disciplinary effects through visibility, conceiving discipline as a system of control and correction (Foucault, 1980; Legge, 2002), is analysed in two stages. In fact, it is suggested that different ‘disciplinary effects’ of visibility should be included in different circuits of power – even though (or, instead, precisely because) both aspects are often related in practice and theory, in line with the “intertwining of knowledge/power” (Legge, 2002, p. 86).

The disciplinary effects considered in this section are the enactment of rules deriving solely from the “*post facto*” monitoring (and eventual correction) by central actors. These *more ‘direct’ effects* and enactment of rules based on *ex-post* control and detection by central actors should be included in the circuit of system integration. On the contrary, this section does not examine (self-) disciplinary repercussions deriving from a greater visibility, since these repercussions are related with local actors’ dispositions and their acceptance and enactment of rules of membership – a component of the circuit of social integration, to be analysed in the next section. Therefore, the *more ‘indirect’, potential repercussions* of visibility in creating self-disciplinary dispositions among the local (controlled) actors should be included in the circuit of social integration (in the next section)

As regards *disciplinary effects* derived from visibility and monitoring, typically by central actors, the adoption of a parallel accounts solution in the second stage of SAP FI mobilisation is an illuminating example. As described in the previous chapter, a parallel accounts solution enables to obtain, simultaneously, a tailored solution to each

country, and a common, uniform basis for all the companies. Some disciplinary effects were quite direct. As an integrated solution using a single, central database, SAP granted to central actors a great visibility over local figures and reduced the possibility of data manipulation. The following comment from an IT respondent highlights the role of SAP FI and, regarding stocks, SAP operational modules MM and PP:

Respondent: *“I want to know ‘How much do you spend in IT on your country?’. [Before SAP FI,] one country uses a certain account, another country uses another account. As you don’t know the accounts, you’ll ask that information to each country and they will give you the figures according to what is in their system, or they are going to ‘prepare’ them [voice with an ironic tone]. [But] if you already know the account where IT costs are...*

Researcher: *I don’t have to ask information to anyone.*

Respondent: *You may even ask, but then you’ll check if it is true. The same happened, e.g., as regards stocks, lately. Before, you asked ‘I need to know the stock figures’. Everyone prepared and sent the information. And you only saw the figures, nothing else. When you checked the system, you didn’t know how it was [the figures were produced] (...). They would need to access ‘n’ systems, all different... [and that was complicated or impossible]. Now, the people from corporate management control already have access to SAP. One thing which facilitated it was precisely that those people... [can access one single system].”*

Both examples, from two different functional areas, illuminate the greater visibility of central actors potentiated by SAP, through the various modules gradually implemented and in the ways the modules were mobilised by the actors involved.

In addition to SAP FI (and other adopted modules), other technological innovations were described as creators of disciplinary visibility by central actors. The financial control of purchasing processes (relying on both SAP and non-SAP systems, such as the IDAR solution, further analysed below in this subsection on page 519) was a

recurrent topic raised by respondents; the following perspective of a senior manager is representative:

“If I don’t have that technology [supporting purchasing procedures], it’s almost impossible to control, to guarantee that the orders are placed correctly, with all the information, and that when the materials are received that order is selected and the quantities and prices are conferred, etc., and that the payment is done in the correct way. If there is no technology, or the information system, to allow that to happen, it is difficult to control. [An hypothetical rule:] ‘For acquisitions above ‘x’ Euros of non current items, 2 or 3 budgets must be obtained’. Well, if I don’t have visibility over that, [the rule] is useless to me, right? (...)

Investment projects are where this [verification] is needed the most. (...) All the required information for an investment project has to be there: the budgets, etc., the justification (...). It is a process which starts in a plant, then it is approved at a country level... it depends on the amounts.”

In both examples, this ‘Panopticon’ gaze allowed by the technological innovations created a disciplinary effect. In the first example, this disciplinary effect derived from the possibility that the central actors could directly access the various SAP modules and verify the details behind the final figures (rather than merely receiving the final figures sent by the local actors, with limited possibilities to verify their reliability). In the second example, the disciplinary effect derived from the visibility over each step of the purchasing process through the IDAR solution.¹³

The *second effect of visibility* (as introduced in p. 508) concerns *benefits for central actors’ decision making*. As amply described, technological innovations, combined with organisational innovations, enabled central actors to have visibility over the detailed information and the calculative processes underlying the final figures.

¹³ In addition, central actors were able to identify and make sense of local information, given increasingly shared rules of meaning. However, this aspect is related with the circuit of social integration, to be analysed in the next section (alongside the promotion of self-discipline through rules of membership).

The benefits of visibility of central actors, therefore, exceeded the merely technical activity of financial consolidation. The benchmarking (and resulting knowledge) facilitated by the visibility over company-wide (more) comparable figures allowed a greater intervention by central, higher level actors, as the following dialogue with an IT member makes explicit:

Respondent: *“A foundational work was done to attempt to make key financial concepts uniform, to allow an analysis at higher levels of the process which would only be possible, both for benchmarking and consolidation, if the origin [of the information] has a degree of uniform alignment of all plants (and hence of all countries). Otherwise, we’d be working with erroneous figures.”*

Researcher: *So, the idea of uniformity to simplify consolidation is only half of the story. Actually, the need, the desire to benchmark is the other side of the story. So, the technical issue of consolidation alone might not justify... [interrupted]*

Respondent: *... [Consolidation] is not the full reason.”*

A CC member described the limitations of actors located in Portugal to follow-up on the implementation of defined strategies, and he separated formal decision power (of Mr. A and other Portuguese central actors) and “*de facto*” decision power (of top management located in Madrid) (see quote in subsection 5.4.1, page 329). The CC member then highlighted how the greater visibility improved central decision making processes and hence increased the power of central actors in Portugal, including Mr. A.

“Researcher: *[The non-Portuguese] CEO was in Spain until 2000/2001. But, in the meantime, the CC was already in Portugal, so a transfer had already started... [interrupted]*

Respondent: *That’s where the big difference lies. When the shareholder starts feeling a minimum comfort as regards the information systems, in a final analysis, it becomes a bit irrelevant whether the CEO is Portuguese, French, English, Chinese or Russian. But he has to trust the information systems. (...) I don’t believe in ISs which are based on a trust relationship, too dependent on people. (...) I don’t believe in ISs which are based on procedures, rules and alternatives which depend on person A, B, C or D*

being in a certain location. The ISs must be autonomous from people. So there must be clear rules and procedures, as simple as possible. (...)

People must know that a part of the obligations of being in a group (...) is a timely and quality report towards the corporate centre. And those things have to work independently from the presence of particular people in particular positions.

Researcher: *So, the CEO remained in Spain for some more time but with an increasingly smaller structure. So, in practical terms, power was gradually being transferred to Portugal.*

Respondent: *Yes, power from that point of view, no doubt. I.e., power in the sense of an increasing visibility over the entire decision process, over the information that was available, and so that [Portuguese central actors] could also make any necessary decisions.”*

This account describes how the innovations in the circuit of system integration increased the trust in information reliability. This increase in trust was based on greater “trust-in-systems” and on overcoming the problem of lack of “trust-in-persons” by diminishing the dependency of the new system as regards people (Giddens, 1990; Moilanen, 2008; see characterisation of previous situation in subsection 6.2.1)¹⁴. In turn, the greater knowledge derived from this visibility improved central decision making processes and enabled greater action and intervention by central actors. In addition, this account also highlights the interwoven nature of, and repercussions between, technical and organisational innovations, analysed later in this section.

Innovations did not just open up lines of visibility to guide immediate, direct action, on matters already under evaluation. In fact, the fieldwork highlighted how the new lines of visibility enabled by the various innovations contributed towards actors starting to question existing practices and arrangements, and to consider alternative arrangements, as stated by a senior manager:

¹⁴ The next section discusses how changes in the circuit of social integration further contributed to a greater ‘trust-in-persons’.

“Having access to information and being able to compare information, allows us to identify (...) activities which were made more efficiently in one place rather than in others. And then it allows us to confront: ‘Why does the back-office of [a particular country] only need ‘x’ people per million of sales, and [country C] needs ‘y’?’. At least, it allows us to question. Question and understand the reasons why things are done in a certain way. If we didn’t have the access to information, and the visibility over that information, we, as a corporate centre, would never question ourselves, we would never question people about that, unless they themselves took that initiative and tried to do some benchmarking.”

Therefore, these innovations had ‘productive’ effects (in the mainstream, non-Foucauldian sense of ‘productive’, analysed in section 3.3). These productive effects included current decision making and, importantly, fundamental unveiling of (until then) unnoticed issues, questioning of existing arrangements and considering ways to change them.

Significantly, the ‘uniformising’ way SAP FI was (re)designed and (re)mobilised had a two ways relation with praxis, with strategic political action (Seo and Creed, 2002). The uniform mobilisation of SAP was both a consequence of praxis (as the previous chapter made clear) and a condition for further praxis. Had SAP FI not been further remobilised to promote uniformity and the initially designed models continued to diverge across the countries, the comparability of information from the various locations would be reduced. The reduced comparability would reduce knowledge about the company as a whole and the ‘productive’ effects for central actors, both on current and fundamental issues. Developing these insights may be a contribution to the ‘embeddedness paradox’ of institutional theory (see brief mention in section 2.4; Burns and Baldvinsdottir, 2005; DiMaggio and Powell, 1991a; Holm, 1995; Seo and Creed, 2002), since these innovations were facilitative to question existing

arrangements. However, such theoretical development is left for future research (see sections 9.2 and 9.3).

Finally, a note is required to avoid interpretations which overstate the potential contributions of these innovations. SAP FI deals with financial accounting and the CC and the SSC, collectively, have a strong financial, administrative and control orientation. The importance of the insights and knowledge provided by these innovations to key central actors has been shown, but it should not be overstated, either. A senior manager thus commented:

“[Consolidation of financial information] required hard work, but it wasn’t something [extraordinary]. (...) That was not the problem.

The problem was the capacity to leverage on information to improve global management, to improve investment decision making, to optimise, to benchmark... And work on that with the constraints of information originated in a multinational company. The company could not continue to operate only in the contexts it knew well, in the national contexts.

And it’s true that many of the experienced problems were related with a minor ease in these [foreign] contexts. E.g., the labour market in [a particular country] has particularities and a context totally different from Portugal or [two other countries]. This caused many of the ‘overcosts’ and the incapacity to quickly find solutions for the assets in [that particular country]. We didn’t have the knowledge, we were not sufficiently well... comforted, supported in critical areas, to make appropriate decisions. (...) I think that happened a lot. It is as important to reconcile the information which is reconcilable, as well as to identify that information which is not reconcilable. [E.g.,] the regulatory frameworks of the various countries cannot be consolidated.”

This insight does not contradict the previous analysis on the importance of the examined innovations. But it is important to acknowledge the contribution of other factors beyond those being examined, to avoid biased conclusions and hence contribute towards the balance and internal validity of the case study (Yin, 2009).

Another issue required close empirical examination and careful reflection, in order to improve the internal validity of the case study: the repercussions of the SSC. As the interviewees' perceptions about the relevance of the SSC were triangulated, it became apparent that they were quite diversified. This diversity of perceptions was basically related with the mere consideration of direct and linear 'effects' of the SSC, or the consideration of more complex and integrated repercussions. This diversity of perceptions is analysed next.

7.1.2.2 The contested importance of the SSC

The SSC as a mere 'plant of transactions'?

Some interviewees downplayed the relevance of the SSC in terms of attributing a greater power to (other) central actors, especially when compared to the relevance of the CC. The following quote from an IT interviewee is representative. This interviewee started by describing the context in which the location of some corporate functions became more relevant for Mr. A:

"When [the company in country C] is acquired, there is in fact a cleavage. (...) Because the acquiring company was [the Spanish subsidiary], (...) it owned the assets of [most types of product lines], in [several countries] and even in Portugal. The Spanish subsidiary swelled... I'd say that even central power [increased] in Madrid: 'Now, we are going to be the kings of IndCo, because we were the ones who bought'. (...) And then maybe something emerged which started having some relevance: the weight of the corporate power and corporate functions – only in the financial area and in management control, financial control [as opposed to operational control]. (...)

[Mr. A] wanted to have things nearer... He is the shareholder, the Chairman, and wants to have the people here; when he has doubts, it's a lot easier talking to them. (...) Then, the idea of an SSC, of a centre, is born. And then, there is clearly the decision to locate things (...) here. Both the SSC... [and the CC]."

However, the interviewee then downplayed the role of the SSC, when compared to the CC's:

“But the SSC, I’d say, is not very meaningful. The SSC, sincerely, I’d say it’s more a matter of form, than of substance. The SSC is a plant (...) posting invoices and controlling (...). It’s really only a plant of transactions. Nothing else. It doesn’t decide anything, (...) it does not control anything, it does not manage anything... It’s a very mechanical plant. It could be soles for shoes. In this case, it enters data in the system. And I’d say that [activity] could be done anywhere.

And I’d say it was here, perhaps because costs were lower. If it were to be located in Europe, it’d be here. The only [other] option would be ‘not to locate it here, but in India, or in any of those called emergent countries’ – that was already discussed at the time. There were companies like HP or IBM doing accounting in India. But it was considered that it was very dangerous to set up such a thing without making things uniform, without transforming the information systems.”

This view of the limited influence of the SSC to achieve the objectives of central actors is mainly derived from the consideration that the SSC mostly performs mechanical financial accounting activities, and accounting postings in particular. Within this view (in line with the view of SSCs as “the new service factories” with a “factory-like appearance” (Seal and Herbert, 2009, p. 18), both this respondent and a consultant considered that outsourcing the SSC activities to an external company, located in typical outsourcing destinations (e.g., India; see Nicholson *et al.*, 2006) was perfectly viable, had it not been for IS diversity at the time.

Additionally, the SSC lacks formal power over subsidiaries – indeed, the subsidiaries are the SSC’s (internal) clients. Indeed, the nature of a client-supplier relationship between the SSC and the local subsidiaries precludes the possibility of the SSC imposing its views upon the subsidiaries on contentious issues. In those cases, the

SSC has to resort to the CC to settle the divergence and, if needed, to impose a solution based on formal power.

However, the researcher's interpretation of the case study suggested a more detailed, fine grained and subtle influence of the SSC – yet crucially important - to achieve the objectives of central actors. This interpretation is analysed next.

The SSC subtle but decisive influence as an Obligatory Passage Point

Although the SSC had (and has) no formal power over subsidiaries, the SSC structurally gained power (in turn, benefiting central actors) by becoming another *Obligatory Passage Point*. This more subtle influence of the SSC resides in encompassing activities beyond its core, typical activities – posting financial accounting transactions. Many accounting and finance processes were transferred to the SSC, supported by a web of mechanisms in a way that many aspects of organisational life (i.e., processes and events, in particular at a local level) would almost inevitably be *conducted through the SSC and desired check-points*. Through this *routing of organisational life*, the SSC became solidly established as an Obligatory Passage Points (Latour, 1997), contributing towards the objectives of central actors.

From the numerous examples found, two are now mentioned. The first example concerns the *adoption of certain control mechanisms previously absent* from some local sites. Being an OPP, the SSC allowed the implementation of such control mechanisms. The examples in subsection 6.3.1 of absence of circularisation maps and inventory of fixed assets in some local sites are revealing.

The second example concerns the SSC's central role in the *control of purchasing processes*. Two mechanisms can be mentioned, conveying how such control is carried out by the SSC, through IT-based processes. The first mechanism relies on an IT-based process supporting the accounting workflow, including the central posting of documents (a process briefly described in section 6.3). Documents received in the local sites have to be digitalised immediately as they are received, and their digital image and record becomes the support of the entire accounting process, through the IT solution IXOS. This supports the central verification, by the SSC, of the adequate authorisation of all transactions, through a number of check points. Indeed, the control process starts *before* the supplier's invoice is received: purchasing authorisation by the appropriate (local or central) actor must be obtained before the order is placed. The workflow stipulates that when a supplier's invoice arrives at a local site (and is immediately digitalised), it is confronted with the previously authorised order and any divergences have to be clarified or rectified by the appropriate actors.

This IT-based process was only possible due to the existence of two previously introduced elements of the circuit of system integration: the IT solutions SAP FI and IXOS. IXOS took a central role and became another non-human actor, tightly linked with other actors (such as the SSC and SAP FI) and tightly woven with the organisational processes it supported. Clearly, the IXOS innovation became another Obligatory Passage Point.

IXOS allows an instantaneous transmission of the (scanned) document from the local sites to the SSC, an integrated, paperless workflow, and an overall greater efficiency in the accounting processes, among other economic benefits. In addition, it also allowed increased central control, as documents immediately become centrally

accessible and visible – and controllable. An SSC senior member described the greater control derived from IXOS and related organisational rules.

“We defined that invoices have to be sent to a certain location and scanned immediately. Why? Because we think that everything has to be in the system, the invoices cannot be left ‘wandering around’. Otherwise, people can shove them in a drawer – because they forgot, or for any other reason. And we avoid end-of-year surprises, like the ones we had. We had unpleasant surprises.”

The second mechanism of control of purchasing processes by the SSC, through IT-based processes, is particularly interesting and relates to the *purchase of fixed assets*. An IT solution, named IDAR, aims to ensure the prior authorisation of fixed assets purchases¹⁵. A backwards description of the process elucidates the control logic. Payment of a fixed asset purchase invoice requires a prior posting of the invoice, which in turn requires a prior creation of a record for the future fixed asset in IDAR, which in turn requires a prior authorisation by the actor with the required formal power. Since the start of the process (the creation of the future fixed asset record in IDAR) is attributed to the SSC, eventual deviations from the centrally prescribed process (e.g., the request of payment of a non-authorised invoice) are detected, as all steps of the process are carried out by the SSC. The IT solution IDAR became another Obligatory Passage Point, another non-human actor, tightly linked with other actors (such as the SSC and the CC) and tightly woven with organisational processes.

¹⁵ IDAR might have been analysed in the previous subsection, when the repercussions of SAP FI (and other technological innovations) were discussed. However, since the repercussions of IDAR are very closely related with the role of the SSC, their discussion was only included now, within the analysis of the *collective* effect of both technological and organisational innovations. As already mentioned, the tightly intertwined nature of the innovations and their repercussions promotes the existence of various plausible structures for analysis.

A local actor, among others, clearly identified IDAR as a control tool to overcome the lack of timeliness of a control based on the accounting posting stage, as he commented:

“IDAR became a control tool, to put some order in the house. I imagine that, if there was no rule, all plant directors would approve any kind of investment; I’m just imagining, I don’t know. (...) “We cannot be dependent on accounting [posting] to perform that control, (...) it’s already too late. (...) The control resides in a systematisation of authorisations. No one sets up an ‘Investment Authorisation Request’ without the required approvals, going through all those steps of IDAR. A request over [amount concealed] Euros must have around 15 approvals (...). So, everyone gets aligned.”

This local actor was clearly aware of the crucial importance of control mechanisms being points through which processes obligatorily had to go through – or, if avoidance of control was desired, points which would have to be circumvented. This local actor argued that the SSC, as a transaction-oriented unit and physically distant from the local sites and actual activities, could not detect some types of manipulation, should local actors perform them (significantly, respondents from the SSC and the CC also mentioned these particular types of possible manipulation).

Importantly, the effectiveness of the SSC as a control OPP relied on IDAR being actually an obligatory passage point, on its obligatory nature. Should it be possible to circumvent IDAR – i.e., denying its ‘obligatory’ nature-, the control effectiveness of the SSC would wane and ultimate control would then depend on the effectiveness of other complementary and supplementary OPPs in the network (namely, the CC), as discussed in the remainder of this subsection. Later, the next section analyses local actors’ comments about limitations of innovations to produce a disciplinary effect as regards the circuit of social integration.

At a time when this interpretation of the empirical insights was emerging, the researcher took a lead from an IT interviewee to crosscheck the interpretation. The dialogue is now transcribed, for it allows for a number of important observations.

Respondent: *“The SSC also [controls the compliance with defined procedures by the units], as well. ‘I don’t check this invoice, because it didn’t follow the normal process’. And someone will have to explain why it didn’t follow that process.*

Researcher: *Just a quick comment. That’s where the SSC may have a much more important role than...*

[interruption to change card in recorder]

Respondent: *The SSC is a plant of transactions.*

Researcher: *Yes. But it is embedded in processes which ensure control because the SSC exists. (...) For example, the case of IDAR. Should the SSC not exist and should the local teams be the ones who continued to process the invoices... [interruption]*

Respondent: *They wouldn’t create the fixed asset file.*

Researcher: *They might not create it, or might not enter in IDAR¹⁶. And so the SSC becomes relevant because... [interruption]*

Respondent: *... there is a rule. First, you have to do this, and then that... And you only post the invoice, if this exists. In order for this to exist, that has to exist.*

Researcher: *Exactly.*

Respondent: *If the invoice gets there, and doesn’t have [the required previous steps], the SSC returns the invoice. If it returns, it doesn’t pay. And all things are confirmed there.*

Researcher: *That control mechanism would not exist, if there weren’t that ‘plant of transactions’.*

Respondent: *Right. (...) It’s like the auditors, who check if the people use certain transactions or not.”*

¹⁶ According to procedures (formal rules), an entry in IDAR must precede the creation of a fixed asset file.

Subject to an important methodological justification¹⁷, this dialogue was important in several ways. The researcher's initial suggestion immediately elicited the same, somewhat derogative consideration that the SSC was a mere plant, totally in line with another IT interviewee quoted above in this subsection. However, when the interviewee's own previous sentence about the SSC's control role was developed, the interviewee provided insights further confirming the SSC's importance to ensure certain procedural controls – formal rules which otherwise local actors might not enact.

A more accurate perspective of the contribution of the SSC (and actually of all the innovations) should go beyond an analysis of the repercussions of the innovation in itself, as if it were isolated from other technological or organisational conditions. The analysis now therefore considers how the various elements of the circuit of system integration became Obligatory Points of Passage, embedded within an *organised network of complementary and reinforcing elements*.

¹⁷ A methodological note is required. It is acknowledged that the researcher's questions were not as neutral as typically recommended for conducting semi-structured interviews and might be criticised for being leading questions (Silverman, 2005; Yin, 2009). The potential justification based on the objective of testing a research hypothesis is also not sufficient in itself. Ribeiro's (2003) reflections on the last stage of his fieldwork, directed to crosscheck and confirm his interpretations and reading of the case, are applicable. "I had to avoid questions of the type 'do you agree with this interpretation'? Probably, the interviewee would be influenced by the interpretation suggested, and by her/his 'membership work' towards me." (Ribeiro, 2003, p. 167).

However, in the circumstances of this particular moment of this particular interview, a more direct approach was considered more appropriate, for three reasons. First, the topic was introduced by a logical consequence of the interviewee's reasoning (who had just stated that the SSC had a control role), and researcher did not fully justify his rationale, because the interviewee developed and justified his own rationale (which was in line with the researcher's hypothesis). Second, this question derived from an interpretation just starting to emerge and was elicited by an analysis made by the interviewee; it had not been included in the interview planned topics, let alone the exact set of questions, so it did not benefit from prior reflection. Third, a pragmatic reason: this interview was approaching three hours, its end was eminent and it was virtually certain that there would be no more interviews with this respondent; therefore, the researcher could not afford to adopt a more open approach, which might take longer to reach a conclusive point and hence fail to crosscheck the research interpretation and hypothesis. Finally, regardless of the original reasons, what is crucial, in pragmatic terms, is the extent to which the interviewee's reply may have been biased by the researcher's approach; in this regard, the researcher has no doubts that the interviewee's insights were not at all influenced, *de facto*, by the questioning approach, since they were basically a development of the first quoted sentence.

7.1.2.3 OPP's embeddedness and complementarity

The previous analysis highlighted how the capacity of the SSC to control relied on having become embedded in wider processes of control. By having become *embedded, encroached in wider processes of control*, the SSC became a *key nodal point* which is difficult to circumvent. By having established and structurally secured that key position within the actor-network and its organisational processes, i.e., by having become an Obligatory Passage Point in the circuit of system integration, the SSC has achieved a *higher relational power* as regards the local actors. And, given the SSC's alignment with the interests of key central actors, the SSC also increased the relational power of those central actors as regards the local actors. The central actors secured a higher relational power indirectly, through the actor they had introduced in IndCo's circuit of system integration.

However, the SSC was integrated in a wider *organised network of control devices* which *complement* each other – in particular, the SSC and the CC. In fact, these actors do not only complement each other, but they also *supplement* each other, with one actor potentially replacing the other, should the previous one fail to adequately exercise control. Resuming the insights provided by the local actor quoted above in page 520, this actor was aware of the existence of such a *network of complementary (and supplementary) control devices*. In this case, the management control area of the CC (rather than the SSC) would be the organisational structure which might detect a potential manipulation. In fact, in spite of having recognised the SSC's control role, he shared the perspective of the other interviewees who downplayed that control role - in particular when compared with the CC management control area and with the formerly existent control and administrative structures at a local level, before the SSC creation).

“A person from the SSC obviously will not do that [such a close control as if he/she was in a plant]. That can be done, eventually, by the [CC] management control.”

Therefore, the IT-based control devices (OPPs) might provide information to the CC - another OPP - which, due to the more analytical (rather than transactional) nature of its objectives and activities, might detect the manipulation which the SSC did not notice.

In addition to this *subtle (yet effective) complementarity* of organisational structures, complementariness can also be very *ostensive*. This is particularly the case mentioned above in this subsection of the CC intervening when the SSC and local subsidiaries do not reach consensus on a particular issue. The SSC sometimes asks the CC, as an actor with formal power over local subsidiaries, to intervene, in an episodic way.

In fact, and in line with the diversified perceptions of the SSC as a control device, the *SSC relation with local subsidiaries may be considered ambiguous*. On one hand, the client-supplier relationship does not attribute any formal power to the SSC. On the other hand, substantial *de facto* power derives from the structural power relationally gained through the mechanisms analysed above and from the possibility to resort to the CC to solve unsettled divergences with local subsidiaries. This ambiguity is captured in the following dialogue between the researcher and an SSC member:

Respondent: *“People were used to managing their own things, to do as they thought it was best. Now, they are given directives... [correcting the prior reasoning] We do not impose them anything... [correcting the reasoning again] Well, in the limit, we end up by imposing...”*

Researcher: *To impose, it has to be done always through the corporate centre, right?*

Respondent: *Yes, yes...*

It is important to highlight that the effectiveness of these networks only gradually improved. Interviewees mentioned several contemporary or recent examples of tensions between central and local actors, even referring to the period during which the fieldwork was conducted (2005-2008, i.e., several years after these innovations were introduced). E.g., a CC member indicated that only very recently the objectives that led to implementing IDAR started being attained.

Respondent: *“The ultimate objective of IDAR is being attained, in this last year: that local teams previously create a list of investments to make throughout the year; and that throughout the year all the investments carried out are matched against the initial list; and that all variances are better understood and explained.”*

Researcher: *That is pure budgeting. [suggesting that it was not a major innovation]*

Respondent: *Yes, but in the previous years, it easily happened that the lists of budgeted investments did not even minimally correspond to the reality throughout the year. And that process allowed management control [department] to start becoming aware of that reality, to compare the approved and budgeted figures and try to make those corrections.”*

Complementarity and reinforcement between organisational and technological innovations, between human and non-human actors strategically situated and designed to be Obligatory Points of Passage, *go beyond their daily operation*. Various interviewees also stressed *development dependencies*, complementarities and reinforcements between the SSC, the CC and SAP FI. This section has already analysed the influence of SAP FI on the CC and SSC development. The focus now turns to how the SSC and the CC influenced SAP FI development.

7.1.2.4 Dependencies of development: the SSC and the CC influencing SAP FI development

While the previous subsection analysed how SAP FI influenced the development of the SSC and the CC, the ensuing text analyses the reverse phenomenon: how SSC and the CC influenced SAP FI development. The following quote of a senior SSC member (in line with other interviewees) reflects both phenomena, recalling the importance for SAP FI development of the SSC as a single, central organisational structure dealing with financial accounting:

“It works both ways. Without a system and a technological platform, etc., an SSC would never exist. But the SSC also facilitates uniformity in technological platforms and implementations [i.e., developments]. Everything is a lot easier, because there is a global [organisational] platform here [the SSC].”

Therefore, the development and implementation of innovations in SAP FI were facilitated by the single location of the “organisational platform” (the SSC) where most financial accounting activities were carried out – a location which was, in addition, the same where the Global IT team was situated¹⁸.

As regards the CC, one of its managers commented on its need of a common system, when the CC was created.

“The start of SAP (...) coincides with (...) the creation of a corporate centre, (...) with finance, management control, etc.. And that corporate centre needs tools and finds things [solutions] scattered all over the place. It has no tools, so it is urgent to have tools. On the other hand, when doing

¹⁸ Some interviewees also mentioned that the existence of the SSC also facilitated the roll-out of the SAP logistic modules – and that, inversely, those logistic modules have also facilitated the activities of the SSC. However, this bidirectional influence is beyond the scope of this research.

[the SAP implementation], [it is aimed that] we get something that solves many other things which are needed.”

Another CC manager highlighted the CC initial limitations due to its small size, in a quote already included in the previous chapter:

“We need to ponder, the desirable and the feasible. And when we are at the stage of creating a corporate team, it was at least excessively ambitious... (...) With a team like this, with so little experience, with so little business knowledge, implementing a completely distinct logic would be impossible. So, the option was basically ‘For now, let’s introduce a single system; and then, when things start to...’ (...) There were no conditions for such a type of strategy [implying ruptures].”

However, this respondent further developed a dynamic perspective on the changing capacities – and relationships – between SAP FI, the CC and the SSC:

Respondent: *“When we created the SSC, the CC already had other conditions. Because although a huge effort was needed, we already had a [corporate] team here which minimally ensured that effort, recruited people to the SSC with some anticipation and, as far as possible, trained them. So, as we migrated each country, there were already people minimally available and capable, so that if a rupture occurred – as it happened, e.g., in country C, where the local team disappeared in fifteen days - we managed to sustain that [situation] with people hired here two months before...”*

Researcher: *So, there were already a number of material conditions (let’s call them like this), systems, human resources...*

Respondent: *[correcting a part of the researcher’s sentence] The systems, we were [only then] implementing them... There was, above all, another stability in terms of management control, as regards the teams here. Although they were not large teams, they already had a lot more experience and we had set up a specific team for that project [with consultants].”*

As regards the SSC, it should be recalled that it was created in 2001, when most countries had already adopted SAP FI (in its remobilised form). Therefore, the SSC direct influence on the implementation of SAP FI could only have happened as regards

country C's nearly simultaneous processes of SAP adoption and SSC migration (about which the previous quotes also provide some indication). But the theoretical relevance of this factor can be concluded by the following quote of an IT senior interviewee:

*“If I have a person typing orders in Spain, and another person (...) in Portugal, I don't need common screens. But I'll have that need when the same person types orders for both Portugal and Spain. That person will start making demands. 'Different screens? I want a single screen. Why can't we uniformise it?'. In the SSC, it was exactly the same thing. [Initially,] since there wasn't [one person posting transactions for all countries], that need [to have the same system, same screens...] did not exist”.*¹⁹

Additionally, the existence of the CC and the SSC as additional collective actors and their increasing development, in terms of size and scope of activities, also promoted an increased development of information systems through increased requests of functionalities. And the existence of the organisational capacity to potentially use new functionalities was an important motivator for those new functionalities to be included in the IS. In fact, although exceptions may potentially exist, developing functionalities when there are no potential users is hardly justifiable. An SSC member thus commented:

“Where to get information? That's one of the problems from the start and that with time has gradually improved, and it has impact on the issue you mention, the ERPs. In fact, we have a lot of information, and many times the appropriate reports to get that information are missing. Many times, only as time goes by people start realising that, or new needs emerge. As these needs emerge, we contact our IT team (...) to get that information. (...) We have all the information, it's all inside SAP, but it's not 'F9' [i.e., not immediately obtainable]. Many times, it's almost impracticable. And many times, it is based on those requests [from IndCo's decision makers] that needs of new reports, new parametrisations arise; and then we present those requests [to the IT team].”

¹⁹ Likewise, an IT member thus commented a distinct episode regarding the centralisation of functions: *“Provided that you have the notion of how an accounting team works... Having the same people working with various accounting models in various countries, would make work very complicated. (...) 'Now, change the plug, because you'll now work with a different company'. It makes no sense.”*

A particularly interesting driver for IS development concerned a recent initiative set up within the SSC to foster the emergence, development and implementation of innovative ideas. Although there was no limit defining the scope of acceptable ideas, the ones most proposed concerned changes to the information system and, according to two SSC members, this initiative had been generating a large number of change requests – in particular, because each SSC member was required to present at least one idea per month.

Therefore, making an organisational structure such as the SSC a driver of IS change was promoted by formal initiatives intentionally directed towards such end – adding to the role of users' requests arising from emerging information needs, within their ordinary organisational activities.

7.1.3 THE CIRCUIT OF SYSTEM INTEGRATION: KEY CONTRIBUTIONS

This subsection now synthesises the key contributions concerning exclusively the repercussions on the circuit of system integration (as clarified, contributions on repercussions on the circuit of social integration are discussed in the next one). The order of the contributions does not reflect their relative importance, but rather intends to produce a structure as conceptually logical as possible.

7.1.3.1 Innovations as new actors and the redefinition of the organisational fabric

The first contribution has *ontological* and *methodological* dimensions. From an *ontological* perspective, the analysed innovations introduced new actors in IndCo: non-human and human, individual and collective. Moreover, the SSC innovation was

associated with the almost disappearance of the local actors of the accounting area. Innovations redefined the organisational fabric. Therefore, the organisational referent and the set of actors are themselves a result of political moves in the circuit of system integration. The empirical setting is not a given. It is not an *ex-ante* structure and a mere part of the contextual or explanatory factors; rather, it is both an explanatory factor and a factor which needs explanation.

From a *methodological* perspective, the notion that the empirical setting is also a result of the processes which the researcher is investigating (and did not *a priori* know) suggests that the empirical setting defined at the research outset may probably have to be adjusted, as argued in chapter 4. This recommends flexibility during the conduction of the fieldwork, in order to include organisational areas which the on-going interpretation of the empirics suggests to be theoretically relevant.

7.1.3.2 Innovations as promoters of visibility to challenge unquestioned arrangements

The second contribution is to highlight the potential of innovations to grant a greater visibility to central actors, not only favouring decision making in current, established issues, but also favouring *questioning existing arrangements*, at a more fundamental level. It was argued that the way SAP FI was mobilised (along with other innovations) was both a consequence of praxis by human actors and a condition for further praxis to unfold, potentiating further fundamental changes. As already suggested, this insight may be usefully explored to address the institutional paradox of embedded agency (Seo and Creed, 2002; see section 9.4).

7.1.3.3 An emphasis on organisational structures as key innovations in the circuit of system integration

The third contribution is emphasising the importance of one particular type of innovation in the circuit of system integration: *organisational* innovations (in addition to technological innovations), through the creation of new organisational structures as new collective actors.

This contribution is particularly relevant considering the emphasis on *technological* (rather than organisational) innovations in the very scarce case-based literature based on Clegg's framework and focusing on intra-organisational issues. Indeed, only Ribeiro (2003) adopted theoretical lenses and an empirical focus similar to this research²⁰, and he strongly focused on a technological innovation (an ERP system). Although he did not ignore the issue of organisational structures, they were only very briefly mentioned and were not reflected in the research conclusions. On the contrary, IndCo's case is compelling in highlighting new organisational structures as a crucial type of innovation in the circuit of system integration, and an essential part of a wide (intra-organisational) change process.

7.1.3.4 An emphasis on organised networks: connections, complementarities and actors' embeddedness

The fourth contribution of this case is to highlight the importance of the *collective*, of the concept of *network* and, in particular, of an *organised network* – empirically, theoretically and methodologically.

²⁰ Analysing the literature referenced at the start of subsection 3.5.1, only two out of over a dozen case studies drawing on Clegg's framework analysed single-organisations. Within those two, Davenport and Leitch (2005) had a very strong inter-organisational focus. Therefore, Ribeiro (2003) was the only research based on a single organisation case study with a clear intra-organisational focus.

The introduction of one single innovation, individually, produced only limited repercussions in IndCo. Even restricting the investigation scope (temporarily, for analytical purposes) to the circuit of system integration, it was clear that the *combined, reciprocal and cumulative repercussions of various innovations* were both empirically and theoretically crucial. Indeed, while the research focused on three particular innovations (SAP FI, the SSC and the CC), several additional innovations were noted throughout the fieldwork. Some examples are other technological innovations (other SAP modules and other technological solutions like IXOS and IDAR) and organisational innovations (e.g., an industrial benchmarking department, a Business Processes and Organisation department, and centralised – at a country level - logistic structures). The *collective* origin of the repercussions, rather than one particular origin from one particular innovation, was an outstanding insight.

The feasibility and effectiveness of the implementation, operation and further development of the various innovations, as well as their organisational impact, are highly interwoven and interdependent. There are important complementarities and reinforcements between these elements of the circuit of system integration. Each node, in particular when it becomes an Obligatory Passage Point, has the potential to develop and strengthen the relational position and power of other OPPs – as well as to challenge and even replace other OPPs.

In line with Foucault and ANT, the power repercussions of the strategies of the central actors that introduced and promoted these innovations, are dependent on the *collective* effect of these innovations, which constitute a network of human and non-human actors. The power effects of each innovation (and of the collective network) are

dependent on their capacity to become established, embedded and fixed as Obligatory Passage Points within the actor-network.

For this collective effect to emerge, *organisation* is critical (Clegg, 1989). It is not enough to assemble resources, or to implement information systems, or to create organisational structures. As emphasised by ANT, the links between these actors are crucial – among which, the processes routed through these actors, as illuminated by the empirical insights. The linkages, the routings, the complementarities and reinforcements, the overall organisation of the actors, end up by being as important, or even more important, than the actors themselves.

Therefore, it is not merely the *existence of the actors* (innovations) that matters. Additional characteristics related with the network concept are extremely important. The first characteristic is *how these actors (innovations) are connected*, the *socio-technical relations* between them, how they *complement and supplement* each other. And the second is *how the actors (innovations) are embedded in organisational processes*, how they become a *necessarily intervening part* in those processes, in a way that they become *Obligatory Passage Points*.

The emphasis on networks also has research implications at a *methodological level* (in addition to the empirical and theoretical aspects already discussed). Researchers who (too) quickly settle in investigating the ‘effects’ of a *particular* innovation, without being persistently inquisitive in trying to unveil additional related innovations, risk missing important empirical and theoretical insights.

7.1.3.5 Embeddedness in organisational processes: beyond technological embeddedness

The fifth contribution concerns extending the focus of research about embeddedness of rules, going beyond technology (Volkoff *et al.*, 2007) to include organisational aspects as well.

Volkoff *et al.* (2007) identified “embeddedness as central to the process of change” (p. 832). The discussion of this case study fully supports such view, and suggests the extension of embeddedness beyond technology. In fact, an identified crucial characteristic is how rules are structurally defined and embedded in one, or both, types of actors (the technological innovations and the organisational innovations). An example of a technological actor is SAP, which during social interactions automatically enacts the previously embedded rules. An example of an organisational actor is the SSC. The SSC organisation and ordinary, day-to-day functioning is structurally based on the enactment of certain rules by *all* actors, including (and in particular) those subject to control; and, through various mechanisms analysed in this chapter, the SSC strongly promotes the enactment of those rules²¹.

Therefore, going *beyond only technological* embeddedness, a more adequate, wider focus should be the embeddedness of rules in organisational *processes* – which, in turn, depend on *both technological* and *organisational* aspects and innovations. Two CC respondents converged in indicating *processes* as the crucial aspect. One of the respondents stated he was increasingly concerned about processes, and less concerned

²¹ Repercussions of innovations on actors’ dispositions are a part of the circuit of social integration, discussed in the next section.

about systems. The other respondent also emphasised processes, by thus commenting that the department focused in business processes and organisation is...

“structuring, reinforcing the component of change, leveraging a lot on IS, but not exclusively... In organisation models... The processes themselves.”

“We should not equate information with the technologies providing that information. (...) We analyse the processes which provide and manage information. The support tools are a constraint, which we respect, but we are not going to analyse the tool and whether [solution X] is good or not. We are going to analyse if the reporting [process] is satisfying or not. If not and the reason is the tool, then we can question the tool.”

Therefore, the crucial aspect is the process itself and users’ perceptions about it. And these ‘outcomes’ depend not only on the technological tools, but also on “organisational models”. As a conclusion, research on embeddedness should widen its scope beyond technology. It should focus on embeddedness in organisational *processes*, including both technological and organisational aspects and innovations.

7.1.3.6 Innovations structurally extending (and restricting) agencies

The sixth contribution highlights how technological and organisational innovations structurally extended the influence of certain human agencies, as well as structurally restricted other human agencies.

For example, SAP FI was introduced in the actor-network and underwent several stages of mobilisation by central actors. In its current configuration, SAP FI sets a number of restrictions to human agencies, in particular to local actors, by automatically enacting rules which were embedded in technology during its mobilisation stage. This changes the scope of human agencies in various ways. It eliminates some possibilities of agency for local level actors, by transferring it either to SAP FI itself (when SAP FI

automatically enacts certain rules) or to other actors (e.g., when SAP FI restricts posting transactions to SSC actors). On the other hand, this redefinition of possibilities of agency also promotes the structural extension of human agency of central actors. The interests and objectives of the central actors who influenced the processes of introduction, mobilisation and embedding of innovations are now better supported, in a structural way, because the way those innovations are configured to operate within the network promote those interests and objectives. The *capacity of those central human agencies* to produce effects (or repercussions) *was extended*, in time and organisational scope. The innovations took over their place in the everyday relations they establish with the other elements of the network. Those central human agencies may cease to be involved in everyday relations and exercises of power, because innovations took over that role.

It should be clear that the innovations at stake are not only *technological*, but also *organisational*. Indeed, even the above example, focusing on the SAP FI technological innovation, highlighted the role of the SSC organisational innovation, taking over some responsibilities from the local actors and hence contributing to the overall redefinition of the scope of agencies throughout IndCo.

As noted in the first contribution, technological and organisational innovations become new actors in the network. The innovations relationally gain power by becoming Obligatory Passage Points in the network. In other words, the agency of these innovations becomes structurally indispensable and unavoidable within the network, including for other actors whose agency may be restricted. And, in turn, this may also structurally benefit the relational power of the actors whose interests and objectives

influenced the new circuit of system integration and the *structurally redefined scope of agencies*.

7.1.3.7 Mutual dependencies of development among innovations in the circuit of system integration

The seventh contribution highlights how the various innovations in the circuit of system integration were mutually dependent not only in daily operations, but also in their overall *development* – in terms of their introduction, design and implementation and continuous development. This contribution is a particular consequence of the network concept, and the dependencies were both technological and organisational, reflecting the relations between the technological and organisational components of the actor-network. For example, SAP FI initial design depended, among other factors, from IndCo's group and its consolidation solution (see the start of subsection 6.1.3). And subsections 6.2.2, 6.2.3, 7.1.1 and the fourth contribution in 7.1.2 highlighted how various stages of the development of SAP FI, the CC and the SSC exhibited multifarious mutual dependencies.

7.1.4 SUMMARY

This section discussed how various innovations in the circuit of system integration had repercussions in that same circuit of system integration and, in a relatively 'direct' way, in the episodic circuit through rules enacted by various actors and through some relatively 'direct' benefits. Based on such discussion, some contributions were proposed. Figure 7.1, offering an overview of this entire chapter, depicted the major salient insights and contributions of this section mostly in its upper,

lower and right areas (the insights concerning the next section are concentrated in the middle, left area).

The contributions highlighted how *innovations become new actors* in the organisation actor-network and hence *redefine the organisational fabric*. Innovations may become promoters of visibility to challenge previously unquestioned arrangements. The importance of *organisational innovations* was emphasised, in parallel with technological innovations, with both types of innovations being closely intertwined. In fact, the importance of the *collective* was emphasised, as an *organised network of connected and complementary elements*. It was suggested going beyond only technological embeddedness, and also focusing *embeddedness in organisational processes*, encompassing both technological and organisational aspects. It was argued that innovations may *structurally extend and restrict the scope of agencies* throughout the actor-network. Finally, it was highlighted that the various innovations were *mutually dependent* both as regards their current operations and the various stages of their *development*.

It should be noted that this section did not analyse all the insights regarding the circuit of system integration. In fact, this section mentioned at its outset that it attempted to restrict its scope to this particular circuit of power, excluding as much as possible the intertwined aspects related with the other circuits of power – in particular the circuit of social integration. However, the intertwining of circuits of power entails that other insights about the circuit of system integration acquire a particular relevance when the circuit of social integration is also considered. And the repercussions of these innovations in this second circuit, encompassing the prevailing rules of meaning and membership, are the focus of the next section.

7.2 THE RECONFIGURED CIRCUIT OF SOCIAL INTEGRATION

7.2.1 AN INTRODUCTION AND A NOTE ON DIRECTIONS OF CAUSALITY BETWEEN CIRCUITS OF POWER IN INDCo

This section analyses how SAP FI (and other IT tools), the CC and the SSC (as innovations in the circuit of system integration) contributed towards changes in the prevailing rules of meaning and membership (in the circuit of social integration) (Clegg, 1989). The emphasis is on understanding how the innovations promoted the introduction and, in particular, the acceptance of rules by actors, in becoming a part of their “internal structures” (see subsection 2.3.1), promoting new dispositions towards rules enactment. These repercussions are part of the “second-order effects”, including “mindset and organizational culture” (p. 833), that Volkoff *et al.* (2007) suggested could eventuate from technological embeddedness, but which are not embedded in technology (see page 489 and following, in subsection 7.1.1).

An alternative direction of “causality” would be to research the potential introduction of new rules at the level of the circuit of social integration, creating new dispositions among actors, and its eventual repercussions on the overall circuits of power. This direction of causality (of how accepted rules and associated dispositions affect the circuits of power) is theoretically plausible (Clegg, 1989; Ribeiro, 2003) and in the previous chapter this type of influence was considered important to explain IndCo’s circuits of power during the 1990’s. Such alternative direction of causality was, in fact, not absent in IndCo; however, it is argued that this was not the most salient direction of change.

The introduction of innovations was accompanied by communications, presentations and training. For example, as regards the SSC implementation, there was an initial presentation at IndCo's Corporate Centre to all the "eligible" countries, targeted to the country managers and to the leaders of the administrative area. This was followed by tailored and shorter presentations, in each country, to all local actors. A senior manager thus described the need to promote dispositions among actors which are supportive of the technological and organisational innovations, rather than relying merely on the innovations themselves or on episodic exercises of power:

"We try, as much as possible, to avoid to command, because normally we prefer to involve the people in the processes [of change]. (...) Suppose that I want to standardise a purchasing activity, to define the information flow of the purchasing activity. I know what I want. But I'm not going to get there, have the process designed, and 'Now, go!'. No, I will create an entire project, involving people. In which (...) we will show and convince people about the benefits of following a certain standard procedure to place an order, receive materials, all that stuff. A change that in a small company should be no problem - I would tell the person of the purchasing area "From now on, it's like this", and on the following day it would be functioning... here, it can take months, until the process has been 'bought' [by actors], implemented and is [finally] functioning."

A senior SSC respondent conveyed a similar idea of 'buying-in' local actors towards making them accept the new rules. However, the same respondent also acknowledged the potential necessity to resort to episodic deployments of power to impose the change. This respondent was quoted in chapter 5, p. 328, describing the acute difficulty in introducing in some local sites a particular work procedure related with document digitalisation using the IXOS solution. In order to try to solve this problem, the respondent explained the planned course of action:

"What are we going to do? We'll talk to the people, show that this works. It works in Portugal, it works in [another country]... [elongated speech, in a relatively patronising way...] It's more efficient, they won't need as many people. It provides better control... (...) I'll talk to them, and have my boss

talking to the local manager... Etc., etc.. And as a last resource, the CC will have to determine: “No, you will have to centralise”. We are going to try to achieve consensus. Trying to convince, ‘buy-in’ the people. ‘Buy-in’, in the good sense. And then, if it is not possible, it will have to be... [by hierarchic force].”

From the previous quote, it should be highlighted that all the technological and organisational structures supporting the new work procedure were already in place – i.e., they had already been introduced and structurally secured in the circuit of system integration. However, the circuit of social integration was preventing the actual enactment of rules regarding the document digitalisation process. This circuit of social integration was going to be (re)addressed now, but with the backup of the circuit of system integration and eventually with the resort to episodic exercises of power.

Several central actors admitted, and many more provided insights indicating so, that IndCo tended to privilege ‘hard’ approaches to organisational change, relying mostly on technological innovations and explicit, formal directives to bring about behavioural changes. For example, as an IT member acknowledged,

“Communication and change management have always been areas where the IT Department has been weak. In fact, it still is.”

The same respondent argued that consultants contributed to improvements in these areas, even beyond the periods of the consultants’ presence. But the perceptions of consultants themselves were particularly insightful to characterise IndCo’s traditional minor emphasis on the ‘softer’ side of organisational change:

“[In IndCo], they don’t ‘buy’ consultants for organisational change, and they don’t value someone who proposes such approach. They say: ‘We take care of that, we’ve always done that’. Nowadays, they may think differently,

they've been through many experiences, they may consider that I'm not being fair. 'We're not that bad, we've already been through some experiences and we think that [change management] is very important, so that [neglect] doesn't exist [any more]'. But, at the start, we felt, as consultants, that whenever we tried to include an additional profile, to improve certain components, it was seen as 'Hey, you're basically trying to swell the project with additional hours...'. Even the component of project management, at the start, had to be done by a project manager who had a very 'hands-on' vision; so, he wasn't just a project manager, but also had to be 'hands-on'."

In particular, numerous interviewees, both IndCo's internal actors and external consultants, suggested that the IT Department and IT solutions often led the way in implementing wider organisational changes. An IT respondent presented the implementation of IndCo's IS as a crucial condition to achieve and secure power in acquired companies:

"We always had the culture that, first, to dominate, to exercise power over the acquired company, we had to dominate the ISs very well, otherwise we didn't know what we were doing. I think that operation has succeeded in [the Spanish subsidiary], but it was totally unsuccessful in [a particular country]. Two years passed and nothing was done. Zero. Nobody bothered about implementing IS. (...) And we suffered a lot, in my opinion."

Indeed, the typical approach to change IndCo's circuits of power and to drive organisational change was *introducing technological and organisational innovations*, in the circuit of system integration, *rather than* intervening *directly and mostly in the circuit of social integration*, i.e., addressing dispositions and rules acceptance directly. Instead, as argued in this section, an important *vehicle* for the introduction of new rules (and new dispositions) in IndCo were technological and organisational innovations. In line with the above discussion on embeddedness (see previous section), rules were embedded in innovations and in organisational processes. In other words, the attempts

to change the circuit of social integration were mostly done through innovations in the circuit of system integration.

In fact, IndCo's approach is in line with Clegg's (1989) diagnosis of the propensity of the various circuits of power to promote change. In fact, Clegg argued that rules were mostly related with stability. On the contrary, changes (in the circuits of power in general, and hence also in rules) were most likely to be originated from innovations in the circuit of system integration.

The following Figure 7.5 expands Figure 7.2 (an extract of Clegg's framework). When compared with Figure 7.2, it additionally exhibits the components and relations of Clegg's framework discussed in the current section.

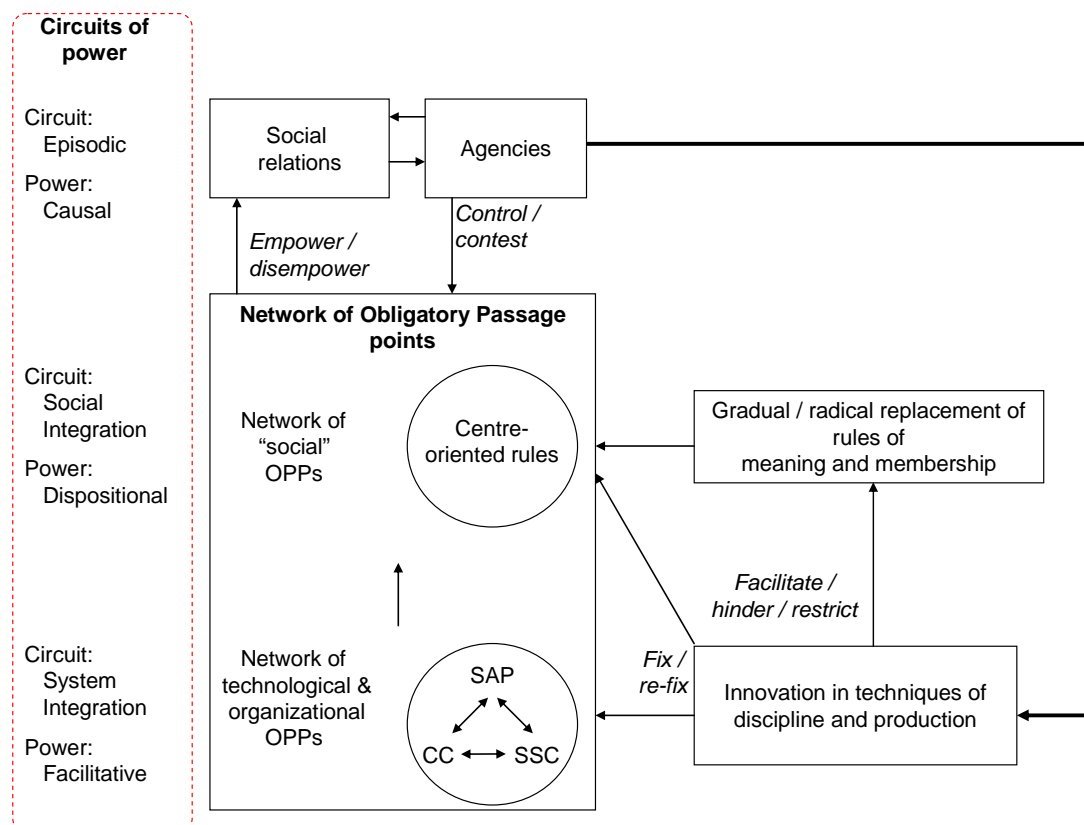


Figure 7.5: Technological and organisational innovations and the reconfiguration of the circuit of social integration in IndCo (Source: adapted extract from Clegg's framework)

Figure 7.5 depicts how the organised network of technological and organisational innovations which become Obligatory Passage Points in the circuit of system integration may promote changes in the circuit of social integration. These changes in the circuit of social integration may consist in the replacement of accepted rules, by making some rules stop being OPPs, and fixing new rules as OPPs – ‘social’ OPPs. In turn, the network of technological, organisational and ‘social’ OPPs creates repercussions in the episodic circuit.

7.2.2 REPERCUSSIONS OF SAP FI (AND OTHER TECHNOLOGICAL INNOVATIONS) IN THE CIRCUIT OF SOCIAL INTEGRATION

7.2.2.1 SAP FI achievements and limitations in changing the circuit of social integration

The previous chapter indicated ways in which SAP FI promoted a greater consistency of *rules of meaning* within the accounting area across IndCo. However, the path towards such greater consistency was not linear: although the original starting point (the original chart of accounts) was the same for the three countries initially involved, the technological and organisational options allowed divergence to occur. Local actors started changing their local charts of accounts, in an uncoordinated way. However, an additional mobilisation of the package introduced a parallel accounts solution and the concept of a common chart of accounts, in a central database in a central server (in Portugal).

Therefore, although local actors could still find locally relevant meaning in their local, country-level charts of accounts, there was an attempt to achieve a globally relevant meaning by the existence of the common chart of accounts and its

correspondence with each of the local charts of accounts. It was therefore a case of SAP FI becoming a ‘heteromogeneous’ object (Quattrone and Hopper, 2006). SAP FI “possess[ed] diversity and heterogeneity whilst being a homogeneous and operative technology”, and therefore “appear[ed] homogeneous for it attract[ed] and generate[d] heterogeneous uses” (p. 212). Diversity was not merely epistemological (how different actors perceived SAP FI), but also ontological (what SAP FI *was*, how it could be used and what for, differed for the various actors).

However, while SAP FI allowed imperative local needs to be met, the diversity in SAP FI usage at local levels was still significantly constrained by central actors, by also strictly limiting the variety of outputs (i.e., SAP reports) made available to local actors. IT and SSC respondents (mentioned in subsection 6.1.5) clarified that SAP standard reports were used as much as possible and that addressing specific preferences of final clients was highly restricted. Indeed, the development of customised reports was not only restricted to central actors, but was even restricted to IT central actors, as highlighted by a senior SSC member. Centrally imposing a restricted number of common reports (indeed, typically restricted to SAP standard reports, since the development of customised reports was limited) limited the possibilities for divergent and inconsistent rules of meaning to develop.

Reflecting at the wider level of the entire SAP system, an IT respondent suggested that the endorsement of appropriate rules of *membership* by local actors could be inferred from their acceptance of, and even desire for, the greater consistency of rules of *meaning* reflected on SAP information.

“The former CEO (...) mentioned that now, at the meetings with the various country leaders, this system allows not to waste endless time any more, discussing the contents of each account: ‘This figure is lower, because we don’t consider XPTO, and the other countries do, etc.’. Now, there is uniformity of contents, making comparison easier and fairer – and, later, evaluation, since evaluation is based on those figures. And that greater fairness must be good to those being evaluated.”

Underlying this comment was the suggestion that it did not make sense that someone acting on good faith and having done a good job – and inherently obtained good results – had something against a more comparable, more transparent and fairer system that would presumably reveal those good results. Conversely, it was implicitly suggested that only someone who was not acting on good faith or had not done a good job could be opposed to it.

Therefore, the uniform SAP system was perceived as “something one cannot be against (Hansen and Mouritsen, 1999)” (Busco *et al.*, 2007, p. 130; also Quattrone and Hopper, 2006). Here, the basis for creating the imperativeness and incontestable status of a uniform system was not the modernity appeal (as described in the previous section, page 502). Here, the basis consisted in the endorsement of appropriate rules of membership, including arguably universal characteristics such as ‘good faith’ and ‘do a good job’ (regardless of the precise ways those characteristics were perceived and evaluated).

However, as discussed in the previous chapter, key central actors still perceived that SAP FI, in itself, even after being reconfigured to a parallel accounts solution, was insufficient to ensure the desired results (timely and comparable information). Some *persisting rules of membership* emphasising local issues and a local focus, rather than global and central ones, were not significantly affected by the implementation of SAP

FI²². A particular aspect was the *persistence of distinct rules of meaning*, in spite of some convergence. Such diversity was not manifested in the technological and accounting structures – which were the same in all the countries. Rather, such diversity manifested itself in the local actors’ actual, everyday usage of such structures. The actual usage of the structures reflected local actors’ accepted and enacted rules of meaning – and, in addition, usage reflected the ways local actors interpreted the rules which were embedded in the structures, and the ways local actors interpreted the business events to be posted in SAP FI²³. This perception by key central actors was an important motivator to create the SSC, as well as additional technological innovations. In fact, a similar case concerned the introduction of the product costing module, SAP CO-PC, in 2005, to address diversity in cost and management accounting across plants, as mentioned in the chronological account of SAP adoption in IndCo, at the start of the previous chapter.

7.2.2.2 A reflection on repercussions of technological innovations in the circuit of social integration

Several insights were obtained about how other technological innovations had repercussions on the circuit of social integration. In line with the introductory discussion of this section, a consultant thus commented on IndCo’s use of IT solutions as a whole:

²² Excerpts of particularly insightful quotes from a CC manager, included in subsection 5.3.3, are repeated here: “*We already had SAP [FI] (...) [But] we didn’t have capacity to have consistent information for decision-making, because each one [at a local level] had a different method. Not that there was bad-will or whatever. Simply, each one did as he/she knew and was used to doing, giving total and absolute priority to the country’s reporting, and not the internal group reporting*”.

²³ The CC manager mentioned in footnote 22 clarified (also quoted in the same subsection): “*Some [countries] posted external personnel expenses in the personnel account, others in overheads, in commercial costs...*”. As regards the (partially related) controlling area, the following quotations included in the same subsection reflected the perceptions of some central actors in 2005 (i.e., around five years after SAP FI was implemented): “*There was a procedure manual for management control. But not all [plant controllers] did in the same way*”; and “*We are sure that, in some cases, criteria are different across controllers.*”

“For someone who is looking from outside, I think it is quite visible: information systems act a lot like a striker, in terms of acculturation to IndCo’s methodologies.”

The consultant related ‘acculturation’ with the adoption of new work rules and supporting new concepts, embedded in SAP operational modules. An example was the introduction, in a recently acquired plant, of the concept of ‘delivery date’ to the client. As analysed below in this section (see 7.2.4.2), there were also crucial non-technological (organisational) contributions for the change to occur and for local actors to start enacting the rule. But the embedding of rules in SAP and its enabling and disciplinary role had, indeed, a central contribution. In a similar vein, other respondents (both central and local) highlighted that the legacy solution, SOIC, had a similar role when implemented in acquired companies (before SAP operational modules were rolled out).

The fieldwork provided insights about various ways in which the SSC (actually, more than the CC, in itself) affected the circuit of social integration. The most direct influences of the SSC are now analysed in the next subsection. After that, the following subsection focus broadens the analysis and researches the most subtle influences of the entire network of innovations.

7.2.3 DIRECT REPERCUSSIONS OF THE SHARED SERVICES CENTRE IN THE CIRCUIT OF SOCIAL INTEGRATION

As argued in the previous section, the creation of the SSC had two, almost immediate effects in the network of actors, at a local and at a central level: it drastically, and swiftly, changed the composition of the local network of actors, by the almost

elimination of the local members of the accounting area; and it introduced a new central collective actor (the SSC) and the central individual actors who worked there.

The elimination of some actors from the local networks and the emergence of a new central collective actor (and its individual members), in itself, had clear and direct consequences as regards power issues and institutional characteristics. The first contribution of the previous section, highlighting the reconstitution of the actor-network, is the basis for additional analysis. In fact, some *local actors* endorsing the local rules of membership described above (e.g., an emphasis on local issues) simply *ceased to exist* in the remaining network of local actors. Second, a *new central collective actor*, with centre-oriented rules of meaning and membership, emerged.

In addition, *considering that often the same individual actor at the SSC processed similar types of transactions for various countries*, the previous inconsistency of practices deriving from different rules of meaning across the various sites was virtually eliminated. Importantly, the *interpretation* of the rules by that particular individual at the SSC became the prevailing interpretation in the recording of accounting transactions. Centralising the execution of certain accounting activities across all subsidiaries in a particular individual was crucial in overcoming the previously perceived situation of distinct interpretations of rules across individual actors, scattered across the various local sites. This *centralisation eliminated one of the sources of rules indexicality*, i.e., of diversity of rules derived from diverse contexts where the rules were applied (see subsections 2.3.1.2 and 3.5.6).

A CC manager clearly considered that the SSC was more important than SAP FI in improving *consistency in rules interpretation and enactment*, although making clear their combined effect:

“I think it is much more relevant that we have moved to a single structure [the SSC], rather than having SAP (...). The fundamental feature is that it is a single software (SAP or another), there is central data processing and the possibility for variations on how to interpret and introduce data in the system is increasingly restricted.”

The very direct consequences of the elimination and creation of actors within the actor-network are significant, and their theoretical and practical relevance should be noted. However, an even more promising area of analysis, from both theoretical and practical perspectives, is to understand the more subtle effects of this migration, and in particular as regards the local actors that *remained* in the local teams, *after* the migration. Furthermore, at an organisation-wide level, the “post-innovations” network of actors (including the new central actors and, in particular, the remaining local actors) is the empirical referent about which power and institutional issues may be raised.

The interpretation of the fieldwork insights suggested that these more subtle effects in the circuits of power and, in particular, in the circuit of social integration must be understood by the consideration of the entire network of technological and organisational innovations. As a merely illustrative example related with the last analysed insight, the SSC repercussion on greater uniformity in interpretations cannot be disassociated from the contribution of IXOS in immediately transporting the image of the *original* document for the SSC actors to analyse and *interpret* – and post in SAP FI. As such, the ensuing subsection focuses on the entire network of technological and organisational innovations (SAP FI, CC and the SSC, and also other innovations

mentioned throughout the analysis). And it investigates how that entire network of innovations influenced the circuit of social integration, i.e., the power operating through the prevailing rules of meaning and membership.

7.2.4 REPERCUSSIONS OF THE NETWORK OF INNOVATIONS IN THE CIRCUIT OF SOCIAL INTEGRATION - PRELIMINARY CONTRIBUTIONS

7.2.4.1 The role of increasing requests by new actors

As argued, the creation of the SSC and the CC constituted the emergence of new central actors with specific information needs, encompassing the organisation as a whole. An IT interviewee suggested that these additional information requirements had an influence beyond the central level, also affecting local actors and their beliefs about the most appropriate approach to produce financial information:

Researcher: *“[Drawing from the interviewee’s depiction of an increasing tighter control and information access:] So, there was an objective to perform a more detailed control, rather than merely based on the bottom-line – although the official strategy is being a multi-regional company, typically associated with a less tight control at a detailed level, and more based on the bottom line.*

Respondent: *OK, you have various regional locations and managers. But you start having centralised corporate functions, the management control [department at the CC], the SSC. That obliges to start having centralised information, and so you [at the centre] stop having exclusively a bottom-line concern and start needing another type of information. By tightening the control, you start obliging that, even at a regional level, people accept a more centre-oriented concern than before, when [the prevailing perspective was] ‘OK, this [information] is for my own use, I don’t care about the others!’. ‘Now, this is for me and it is for them. So, I’ll prepare the information already in line with what they want, so that I avoid further work, later on.’”*

However, the mere existence of requests from central actors may not be sufficient, in itself, to consistently produce organisational outcomes (in this case,

changing rules and practices to produce information according to central actors' requirements). This thesis has already amply described examples of such insufficiency in IndCo. As Clegg (1989) and Ribeiro (2003) argued, episodic exercises of power, through mere episodic pressure and mere episodic allocation of resources, may not be sufficient to produce intended outcomes, in particular in a consistent and recurrent way.

Therefore, from a perspective of theoretical development, an account limited to the emergence of additional central collective actors, with added formal power (in particular, the CC), making more requests and more pressure on local actors, contributes to a possible explanation, *but has a limited explanatory reach*, in itself.

High level actors also appeared to be aware of the insufficiency – and undesirability – of relying exclusively on episodic exercises of power. Applying the concepts adopted in this thesis, it can be said that these actors considered that there was virtually no alternative to relying on structural mechanisms of power, on creating a web of obligatory passage points, on the circuits of system and social integration. As a senior manager stated (see quote at the start of this section, p. 540), this was particularly the case of a large company such as IndCo, where episodic exercises of power are unable to create a coordinated acceptance and enactment of desired rules.

One of the limitations of central actors was clearly related with local rules of membership, which prioritised local interests and a local focus. As highlighted above, the implementation of SAP FI alone promoted greater uniformity of rules of meaning across subsidiaries, but there were no significant repercussions as regards rules of membership.

So, why and how did eventually the rules change? Ribeiro's (2003) work suggested two main explanations addressing the limitations of episodic exercises of power: the role of innovations as creators of disciplinary visibility and enablers of enactment of desired rules. These explanations are now confronted with the insights from IndCo's case.

7.2.4.2 A first contribution: an empirical validation of Ribeiro's (2003) hypotheses

Ribeiro (2003), based on his case study, provided two lines of explanation of practices based on innovations in the circuit of system integration, and which were also present in IndCo. First, Ribeiro proposed that new information technology (an ERP system) and techniques (management accounting) could create new lines of visibility, a 'gaze' over activities and performance; therefore, they could become "disciplinary devices capable of promoting and enforcing the very enactment of the rules being carried" (p. 215). Second, he proposed that those devices could also "*enable* the following of rules" (p. 215, emphasis in the original), "if the measures and figures produced were capable of driving decisions and actions" (p. 271).

Innovations creating disciplinary visibility and enabling the enactment of rules

Both Ribeiro's (2003) insights, that innovations could be creators of *disciplinary visibility* and *enablers of enactment of desired rules*, were also found in IndCo's case.

As regards *disciplinary visibility*, this section focuses on the *self-disciplinary* repercussions of visibility, based on enactment of rules of membership by local actors. The more 'direct' disciplinary repercussions based of central actors' visibility and

control of local actors was analysed in the previous section and it is not considered again, as much as the intertwined nature of the various effects allows. The explanation of self-disciplinary repercussions is substantially more complex, and its building blocks are laid down throughout this entire section, as the various contributions are presented.

The accounts of several interviewees mentioned disciplinary and enabling repercussions. E.g., the adoption of a parallel accounts solution in the second stage of mobilisation of SAP FI (as synthesised in the previous section) had both enabling and disciplinary effects. As regards SAP FI as an enabler of the enactment of certain rules, the combination of a common structure and local, specific detailed accounts was crucial, as commented by a CC manager.

“They could have 500.000 detailed accounts, if needed, as many as they wanted, that would be used only by them. But those accounts would fit in the places [in the accounts structure] that we wanted.”

As a direct *enabling* effect for local actors, this tailored solution provided locally needed reports (such as tax reports) and the possibility to create local accounts - although a constrained possibility, since only (very few) central actors could create accounts. At the same time, it also enabled central actors to produce aggregated reports accessing directly to the local information, which fitted a common global structure.

While SAP FI contributed to increase consistency in rules of meaning across the various sites, it was unable by itself to achieve the degree of consistency that central actors ambitioned. Organisational structures, such as the SSC, were crucial to promote such consistency. In particular, the SSC was crucial in two, highly related ways. First, the SSC disseminated knowledge about the global accounting structures among local

actors. And second, because the SSC became an OPP through which any attempt to materialise deviations from centrally defined rules of meaning had to go through. By being such an OPP (in particular, because it was the only actor that could create new accounts), the SSC was able to be informed about, evaluate and approve (or, by general policy, tend *not* to approve) local actors' ambitions to create new accounts – ambitions which, if centrally unconstrained, could have the potential to (re)create diversity of rules of meaning.

An IT interviewee thus described this role of the SSC (and of the IT Department, in particular during the period prior to the existence of the SSC):

Respondent: *“(...) [The IT area] and the SSC opposed to that [‘creative freedom’ to create specific local accounts]. If that plant doesn’t need, why should the other one need? It’s creative freedom, wanting to be different.*

Researcher: *And from the moment that accounts creation becomes [interrupted]...*

Respondent: *Central*

Researcher: *...an exclusive of the SSC, that situation becomes automatically solved.*

Respondent: *People [from the SSC] will ask: ‘What is this for?’. In addition, sometimes there are difficulties because people in other countries don’t really know what certain accounts of the common chart are for. [Then the SSC member will reply:] ‘So that is what the request is for? Then you’ll use this account, which suits this purpose’. Otherwise, we’d have a situation in which each person creates an account, thinking that the account in the common chart was not appropriate; but maybe it also suits the purpose.”*

Additionally, SAP FI's *enabling* role also promoted, albeit in an *indirect* way, the enactment of new rules of membership which took the centre into consideration. Since one single operation of data entry originated information which satisfied both

central and local interests, local actors had more incentives to adopt rules of membership aligned with the interests of central actors.²⁴

In addition to SAP FI, other technological innovations, along with organisational innovations, also illustrate the two effects proposed by Ribeiro (disciplinary visibility and enabling the enactment of rules). The financial *control of purchasing processes* was already mentioned in the previous section. The rules about purchasing fixed assets included, in particular, not exceeding budgeted values and obtaining authorisation prior to ordering. These are two rules of membership, describing what each actor should do considering his membership of IndCo, rather than membership of a putative independent company (a common situation before IndCo's acquisition). As a senior member of the SSC stated, "*we still don't own the place*". This respondent perceived the IDAR solution (see subsection 7.1.2, p. 519) to be, through the monitoring role of the SSC, a provider of visibility and an enabler of the enactment of these two rules of membership:

"In IDAR, [the SSC] controls budgets [for fixed assets purchasing] (...). When [local] people estimate that something is going to cost 1000, (...) it must not cost 1500; otherwise, (...) the [SSC] Accounts Payable team will not post [the invoice] and will ask why there was a variance, so that people start becoming more conscious when they are doing things [budgets, or purchases]. And also to make them used to the idea that you shouldn't buy things without an authorisation. Otherwise, it's like 'putting the wagon in front of the horses'. It's not only when the supplier's invoice appears, or when the supplier is already yelling for the money, that the authorisation is obtained. It makes no sense. It has not been easy to instil this part [this rule], because when people need something, they are used to grab the phone and immediately make a purchasing order, and maybe they are not used to this bureaucratic side, but they will have to get used to it. And I will be increasingly... [demanding]. I always try, when it's a new thing [rule], to give a period for people to get used to the idea (...). 'Exceptionally, I'll do

²⁴ The importance of simultaneously satisfying both central and local concerns is a contribution proposed in the next subsection, in 7.2.5.6 "Minimise additional work for local actors' compliance – and increase work for non-compliance".

this, but it's an exception...". But after sufficient time has passed, [exceptions] are no longer justifiable and people must start acting [according to the new rules]. If it is not the easy way, it will have to be the hard way. (...)

In principle, [local] people have autonomy to purchase. Another thing is people being conscious when purchasing [and keep within the budget] (...). Otherwise, each one does as he/she pleases. It's a matter of discipline, so that people start realising that one thing is autonomy, but we still don't own the place, right? (...) No one told me this, but we perceive that this is it [this is the purpose of IDAR]. That [local] people feel that 'Attention, pay attention. I am here'. At the end of the day, it's a demarcation of terrain. No one told me, but... 'Pay attention, if you do everything correctly, no one will bother you; but look out, because someone is paying attention'. I think that this is the main purpose: to make people feel that there is someone paying attention."

This excerpt is insightful as regards the perception that the creation of a line of visibility, of a 'gaze' over local actors' activities, had both a *disciplinary effect* (and purpose) and an *enabling effect*. In fact, this excerpt encapsulates both the 'direct' effect of creating disciplinary visibility derived from the control by central actors and the more *indirect* repercussion of creating self-discipline among local actors.

In a similar line, a CC respondent, after agreeing that IDAR was an obligatory passage point²⁵, argued that the 'consequences' of the detection of a failure to enact prescribed rules had longer term disciplinary repercussions: the creation of appropriate dispositions of self-discipline, conducing to the enactment of prescribed rules in future situations. The discipline derived from a *post-facto* control and detection by central actors translated to a discipline based on *ex-ante* dispositions of local actors.

Researcher: *"Occasionally, should there be a greater need for speed in a certain [acquisition] process, something may be classified as a cost [rather than a fixed asset]..."*

²⁵ This interview was held towards the end of the fieldwork and previous empirical findings and research hypotheses and concepts were discussed.

Respondent: *There were cases like that.*

Researcher: *It is actually a way to circumvent the obligatory passage point, right?*

Respondent: *Exactly.*

Researcher: *But sooner or later, the thing [manipulation] is detected*

Respondent: *Exactly. Sooner or later. And those cases tend to become less frequent, given the ‘consequences’ (between commas) deriving from that act.”*

Researcher: *(...) Even if, physically, there’s a way to circumvent that, the process will be blocked later, right?*

Respondent: *[Yes, it will be] [b]locked.*

Researcher: *When the invoice payment time is reached...*

Respondent: *It will be noticed. (...) Exactly, that’s true.”*

A final example, related with non-financial SAP modules, concludes the analysis of Ribeiro’s hypotheses. It also reveals how the various circuits are intertwined and how difficult their analytical separation is.

A consultant provided empirical support to Markus and Bjorn-Andersen’s (1986, p. 501) argument that IS “embody ideas and theories about the desired nature and organization of work”. He exemplified how SAP, given the way it was implemented in a recently acquired plant, facilitated the adoption in that plant of work practices and ideas prevalent in IndCo. This shift occurred since SAP granted visibility and knowledge about the plant production process, to a commercial unit which closely interacts with the plant (see quotation #3 in the Appendix).

This description of “acculturation”, of instilling work methods common to the entire company, suggests the mere reliance on consent, on actors’ lack of alternative

unless to comply, under the pressure of other structural conditioning elements. In this case, the structural conditioning elements were fundamentally technological (Volkoff *et al.*, 2007), but there is an organisational aspect which cannot be overlooked. Rules of meaning were technologically embedded in SAP in a structural way, imposing that the plant actors indicate a delivery date and start using the new concepts ‘production cycle’ and ‘block planning’. However, the strong pressure from the commercial organisation (empowered by the visibility allowed by SAP) was crucial to convert the initial, technologically enforced introduction in SAP of a delivery date, into the actual enactment of the rule at a physical level – i.e., by having the order produced in the indicated date. The organisational pressure cannot be considered as an absolute imperative (as the technological aspects were), but its influence cannot be overlooked in creating the appropriate “mindset” (Volkoff *et al.*, 2007).

With these empirical insights alone, it is not possible to explore whether that consent also created positive dispositions among plant actors towards the work methods; it is also not possible to evaluate how previously existing rules and dispositions influenced the interpretation and application of the proposed innovation, and the rules it brought along – even an ‘implacable’ implementation strategy, as the one described, cannot ignore the existence of previously existing rules, and how they shape actors’ understanding and reaction.

In spite of the research limitations, some conclusions can be still drawn. SAP became an Obligatory Passage Point for the plant actors. Even assuming that this implementation process relied on sheer imposition and actors’ consent, rather than persuasion and buy-in, new rules were introduced and accepted in the circuit of social integration. New rules of meaning (the definition of the concepts of ‘production cycle’,

‘block planning’) were actually introduced via embedding them in SAP, in the way it was configured by the IT team and reinforced by other organisational supporting structures. And the subsequent *enactment* of certain rules of membership (which define the appropriateness of the actors’ conducts and hence their membership status) through the following of these work procedures was closely monitored by another organisational structure, the Spanish commercial, via the visibility allowed by SAP. Therefore, diversified elements of the circuit of system integration fixed, structurally rather than episodically, new rules of meaning and membership and their consistent enactment (self-discipline) by the plant actors.

As a concluding remark, this empirical example allows reinforcing some previous contributions regarding repercussions on the circuit of system integration (see previous section) and extending them to the circuit of social integration. Such is the case of the importance of visibility and organisational structures. In addition, the importance of the *collective* also emerges, and in particular of an *organised network*. This insights are analysed as the next contribution in this subsection.

These insights on visibility, control and self-discipline are quite similar to Bentham’s (1995/1843) and Foucault’s (1975/1977) description of the control in the Panopticon (see subsection 3.3.1). In particular, technology creates the conditions for a permanent, pervading control by another entity (“*someone*”; “*pay attention. I am here*”, as in the above quote, in page 558), a possibility clearly perceived by controlled actors’. In turn, the controlled actors’ awareness of this gaze (“*people feel that there is someone paying attention*”) and the perceived inevitability of later detection of potential deviations, creates self-disciplinary dispositions, promoting the enactment of rules (analysed as an autonomous contribution, in 7.2.5.8 “Perception of inevitability”).

Interestingly, the two first interviewees reflecting on IDAR repercussions (p. 557 and following) provided two different perspectives on why those self-disciplinary dispositions emerge. The first respondent highlighted the latent threat (or the even actual exercise) of sanctions (“*if you do everything correctly, no one will bother you*”; “*If it is not the easy way, it will have to be the hard way*”) – i.e., direct disciplinary actions by central actors. However, ‘the consequences’ mentioned by the second interviewee related to the processual blockages that are created in the event of non-compliance, rather than (actual or potential) disciplinary actions²⁶. This second perspective is one of the foundations for an additional contribution, presented in 7.2.5.3 “OPPs to produce and the promotion of dispositions to desire OPPs and accept embedded controls”.

Local perspectives: downplaying, but acknowledging, the disciplinary effects of visibility

Local actors were fully aware of the control role of these innovations, based on increased visibility. However, some *downplayed the disciplinary effect* of these innovations, in *two main perspectives*. One of the perspectives was downplaying the disciplinary effect in *their particular case*. One local actor thus commented:

“Indeed, there is more control, we are more ‘controlled’ (between commas) in our activity, but that doesn’t create any problem. It doesn’t bother me that someone is looking at what I do. Because I don’t do any more, or any less, because of that. It’s natural that such a large company, with so many plants, has a control system. It’s normal, logical. (...) It seems reasonable to me.”

²⁶ The interpretation that the expression “‘consequences’ (between commas)” was related to processual blockages (rather than disciplinary consequences) derived from a careful analysis of the oral expression of the interviewee, rather than from the topics of the ensuing dialogue. It should be noted that the ensuing dialogue (which could be considered to also support this interpretation) could not be used as a criterion to interpret the expression, since the discussion was mostly led by the researcher, not the interviewee.

Naturally, this is one of the cases where respondents' accounts must be interpreted with caution. In fact, should local actors attribute a great disciplinary effect of the control devices, the researcher could interpret that as acknowledging that, in the absence of such controls, their dispositions and practices would be different – i.e., undisciplined and opposed to the interests of central actors. Respondents' accounts are always potentially biased by their 'membership work' towards the researcher (Ribeiro, 2003), an actor allowed by central actors to be querying organisational members – and in this topic the potential of bias is particularly important.

Therefore, local respondents' insights about *other* local actors (rather than about themselves) are likely to be less influenced by a potential 'membership work' towards the researcher (although such risk is merely potentially diminished, but never eliminated). Therefore, the following comment of the same local actor is particularly meaningful:

“They are simply watching what you are doing. Nothing else. (...) Our activity is as always. At least, in my case. There are colleagues [other local actors] who feel differently.”

Therefore, although excluding *his* particular case, this local actor argued that a tighter control indeed impacted on dispositions of *other* local actors.

The second perspective of local actors downplaying the disciplinary effects of the innovations (and which may also be subject to the above caveat) was arguing that a remote control by central actors and based on IDAR failed to be timely and hence

effective in *preventing* variances. The suggested alternative was a control performed by local actors, with a direct, first-hand knowledge about the plant:

“Although it [the control through IDAR and the SSC] has a dissuasive effect, in some cases it does not work. ‘In fact, we miscalculated, or we weren’t counting on this unpredictable event, and we are going to have that variance’. The dissuasive effect still exists. But the difference [between a local level control and a remote, central control] is between a dissuasive effect when it is still possible to do something [to avoid the variance, should the control be made at a plant level], and the dissuasive effect that will do nothing. (...) It is very difficult to centrally control a plant. You don’t stand a chance. (...) It is too late. If you don’t have a person controlling in the field, you are not going to control anything. It’s just an idea [a false idea] that you are controlling. You are not! When the invoice gets there [to the SSC], what is the SSC going to do? Will the SSC refuse to pay the supplier? Is he guilty of that [lack of enactment of internal rules]? (...) What has been done, has been done. (...) There is only one solution, and it must be based at a plant level. It’s not someone from the SSC who is going to say: ‘Look, you have this alternative equipment to set up this line [of production]’.”

Several aspects potentially limit IDAR’s effectiveness as a control tool. IDAR does not *prevent, impede* local actors from disrespecting the rules (as confirmed by quotes from other interviewees, e.g., in p. 580). In this regard, the effectiveness of IDAR is not comparable to SAP’s automatic enactment of rules embedded in the system, as analysed in the previous section. Human agency is retained by local actors, and local actors’ dispositions are relevant in guiding action. Even more important, not enacting the rules gives rise to material consequences (“*the work has been done*”) and legal obligations (“*Will the SSC refuse to pay the supplier? Is he guilty of that [lack of enactment of internal rules]?*”); this may promote among local actors a sense of a *de facto* capacity not to enact formal rules.

Nevertheless, the acknowledgement of a dissuasive effect (i.e. disciplinary effect), based on IDAR and operated through the SSC, still emerges from the previous

quote. In fact, local actors are aware that such disrespect will not pass unnoticed by the network of control devices, potentially putting at stake the actors' 'membership work' towards IndCo.²⁷ Therefore, the disciplinary effect is indeed present, even if *nuanced* by other factors as the ones discussed.

Indeed, this self-disciplinary effect is visible in a quote from a different local actor. This local actor recognised a *de facto* capacity not to enact formal rules and order without an approval through IDAR. However, the same actor also recognised that the SSC would identify such deviation due to its embeddedness within the integrated purchasing processes and would then halt the process, by not paying the supplier's invoice:

“Once [a purchase is] approved in IDAR, they [SSC] have to create that in SAP. Therefore, any order to a supplier has to include a given number, based on the system. If you don't have a number, you cannot order. And let's imagine that you made a non-official order. You cannot pay the invoice. [Silence, meaning: 'there's nothing you can do']”

Finally, IndCo's case study suggested an additional perspective to Ribeiro's insights. Consequences regarding rules enactment may *not* derive from *new* formal rules introduced by, and embedded in, the innovations, as clarified by a senior SSC member:

“There has always been [the rule defining that there should be] people approving [investments]. But not in such a rigid way.”

Therefore, the contribution of the IDAR technological solution was mostly bringing actual *effectiveness* to the control process, to the actual enactment of already

²⁷ An autonomous contribution in 7.2.5.8 “Perception of inevitability” develops this perspective.

previously existing rules, through the increased visibility and enabling effect – rather than the introduction of *new* rules.

7.2.4.3 A revisited emphasis on organised networks

As argued above, empirical insights (both already presented and to be presented) highlight the need of going beyond limited interventions relying on single, unarticulated innovations. The importance of the collective, of an organised network, was a contribution already proposed in the previous section, regarding the circuit of system integration. This proposal is now extended to the circuit of social integration.

The repercussions on the circuit of social integration depend on the *combined, reciprocal and cumulative repercussions of various innovations*. This included a large number of dispersed actors, ranging from technological actors (like SAP with its various modules, IXOS and IDAR), ‘typically central’ organisational actors (like the SSC, the CC, the industrial benchmarking department and the Business Processes and Organisation department) to less visible and ‘less central’ actors. The above example, about the acceptance and enactment of rules by members in a recently-acquired plant (see p. 559 and following), the influence of SAP (as a technical actor with embedded rules that are later automatically enacted) cannot be disassociated from the influence of organisational actors that are not ‘central’ actors. Instead, they are *local* actors, from a different functional area (the commercial area), but which become another member of a wide network of actors contributing to the enactment of centrally defined global rules due to their embeddedness in organisational processes. Likewise, in an example presented below in p. 588, logistic departments at a country-level (i.e., at an

intermediate level between plants and ‘central’ actors at headquarters) are described as crucial in rule acceptance and enactment.

Therefore, organisational actors contributing to the attainment of centrally defined, global objectives (such as the adoption of rules of meaning and membership) were widely distributed. This highlights the *collective* origin of the repercussions, rather than one particular origin from one particular innovation. It also extends the contributions in the previous section emphasising the concepts of networks and embeddedness, proposing their relevance also to repercussions on the circuit of social integration. And it further supports Dechow and Mouritsen’s (2005) view that “management control in an ERP-environment is not a property of the accounting function but a collective affair where local control issues in different parts of the organisation are used to create notions of global management” (p. 691).

7.2.4.4 A summary of preliminary contributions

This subsection initiates the analysis (to be continued below) of the repercussions of the innovations network in the circuit of social integration. The first identified repercussion derives from increased requests by new central actors. This insight is not unimportant, both empirically and theoretically, but is not here considered as a contribution. Then, the subsection analysed the hypotheses suggested by Ribeiro (2003), that innovations could be creators of disciplinary visibility (i.e., influencing the circuit of social integration) and enablers of the enactment of desired rules. This second role of innovations is more directly related with actors’ behaviours in particular episodes of action, but, as further argued in the remainder of the section, it can also influence the circuit of social integration. Finally, it revisited last section highlights

about the importance of collective, dispersed and organised actors, by proposing that this concept of an *organised network* was also relevant to understand repercussions on the circuit of social integration.

In addition, more fundamental and innovative contributions were developed based on this case study. They are now presented in the next subsection.

7.2.5 REPERCUSSIONS OF THE NETWORK OF INNOVATIONS IN THE CIRCUIT OF SOCIAL INTEGRATION – MAIN THEORETICAL CONTRIBUTIONS

7.2.5.1 Application and confirmation of literature hypotheses in very different empirical settings

This case contributes to theory in a way also related with Ribeiro's hypotheses (as above), but not in a 'narrow' confirmatory perspective. The contribution is related with the empirical setting. In fact, this case study showed that Ribeiro's hypotheses were also valid in a *very different empirical setting*.

What is at stake is *not merely* researching a different organisation; in such perspective, every case study on a different organisation would have this contribution. What is at stake is that this study focused on *a very distinct functional area* and on a *very different type of activity*. Ribeiro analysed the influence of material conditions in the enactment of rules in the *production* area; this case study focused on that influence in the *financial* area and, in particular, in the production of financial information and control - while occasionally drawing on examples from other functional areas and activities to highlight that similar repercussions could be also found at a wider level. In

spite of obvious and important differences between the two functional areas and activities (the production of industrial goods and the production of financial information and control), Ribeiro's hypotheses also had explanatory power in this case.

Therefore, and also considering the validation presented in the previous subsection, this case study contributed to strengthen the external validity of Ribeiro's hypotheses and to the analytical generalisation recommended to promote theory development based on qualitative research (Modell, 2005; Yin, 2009).

7.2.5.2 Innovations shaping actors' scope of agency and rules related with actors' roles

The effectiveness of the network of OPPs relies on *organisation* (Clegg, 1989). A key aspect of such organisation is concerned with the role and contribution of each actor within the wider network, the way each actor perceives his/her role (what each actor perceives to be *expected* to do and not to do) and his/her scope of agency (i.e., what each actor perceives he/she *can* do).

Subsection 7.1.1 has already analysed how, during the implementation stage, central actors structurally embedded in SAP: 1) transactional rules and 2) the definition of roles through user profiles. This structural conditioning (in Volkoff *et al.*'s, 2007 terms) defined boundaries of agency for all actors. The previous section has already analysed how SAP automatically: 1) enacts those rules regardless of any direct human agency and 2) enables or restrains the scope of human agency, during users' ordinary use of the system (the social interaction cycle, according to Volkoff *et al.*). As argued in that subsection, such automatic enactment of rules and human agency conditioning by

SAP cannot be considered an aspect of the circuit of social integration, since it is not related with the creation of dispositions among (human) actors.

Nonetheless, material conditioning also has consequences as regards the circuit of *social* integration. Indeed, the IT-driven and centrally defined boundaries of agency can be considered to be a manifestation of the enactment of particular rules of meaning. These *boundaries of agency* shape the meaning attributed to each particular organisational actor, occupying a particular organisational position, with a particular role, in a particular organisational structure. These are *rules of meaning* which impinge on the actors' sense of *identity* ('Am I an administrative actor entering information in the system? Or am I an analyst?') and are strongly and structurally embedded in the system. In turn, these particular rules of meaning are tightly related with *rules of membership* - what each actor should do as a member of the network, in terms of the expectations of third parties to whom the actor aims to conduct membership work (Munro, 1999) and in terms of his own perceptions of rules of membership. The following quote of a senior SSC actor is representative:

"[With the SSC,] there had to be a click in the way to face the day-to-day and the way of working (...) At the time [before the SSC], the local people, even the leader of those local teams, could post transactions, etc.. We changed the profiles. They can no longer do it. They have profiles of analysis, full stop."

These repercussions are patent in the empirics already discussed. But one of the clearest examples referred to the project of implementing the Product Costing SAP module, SAP CO-PC (as mentioned, this project is beyond the scope of this thesis; therefore, it is only briefly mentioned). Numerous interviewees pointed out the expectation that the role of the plant controller would undergo a significant change,

from a calculative emphasis to an analytical emphasis and to the creation and maintenance of cost accounting rules. This would involve rules of meaning and membership of the plant controllers themselves, as regards their sense of identify within the company, and also rules of meaning and membership of other actors, such as their hierarchical superiors, the plant directors. As a CC manager and an IT member stated, respectively:

“This will also require training the plant directors, to understand that the controller (...) is not his personal assistant to make the ‘little reports’ A, B, C or C which provide exactly the same information of those which are in the system, but someone who is there to help him with qualitative analysis, to help him correct problems which may occur. This will be an aspect to be changed a bit in most plant directors, because that is still the perspective. [The plant controller] is the personal assistant who is there to make the reports and the presentations.”

“Plant controllers like drawing maps, working with Excel, in the offices (...) But sometimes they do not go physically see and become aware of the plant reality. (...) And that is a very large cultural change.”

What is at stake are the prevailing rules of meaning regarding the plant controller function and related rules of membership, and in particular his contribution towards control at a local level – in addition to control at a central level, as other parts of the latter interview and various others made very clear.

Although these comments merely reflected an expectation regarding a change in rules of meaning and membership (rather than an evaluation of past events), they can still be considered as an additional corroborating insight (although with the caveat that it does not refer to actual, past events). In fact, there was an extremely high convergence among central actors on the above diagnosis and expectation regarding the rules

concerning the plant controllers' function, in particular as regards their new analytical role.

7.2.5.3 OPPs to produce and the promotion of dispositions to desire OPPs and accept embedded controls

The various innovations, collectively, became an organised network of Obligatory Passage Points, embedded in organisational processes. In particular, some innovations became OPPs for local actors to carry out their activities and hence be recognised as 'good' organisational members. Therefore, working in cooperation or in an aligned way with some innovations-turned-OPPs became a condition to successful "membership work" (Munro, 1999). The obligatory nature of OPPs for actors to *produce*, combined with the embedding of control rules in those OPPs, strongly promotes dispositions to desire the OPPs and accept their embedded controls.

Several examples illustrate this insight. SAP FI became the only available tool in almost all countries where IndCo had industrial facilities. Therefore, the core of the work of local people involved with financial accounting activities became tightly linked to this tool, to which there was no alternative. When a new module or functionality (and not only as regards SAP FI), becomes the new, single available tool, local actors' membership work becomes strongly dependent on the actual adoption of the tool in their daily tasks. As an IT respondent argued,

"People stick themselves to the IS; they stick themselves because they need to carry on with their day-to-day operations."

As a second example, plant managers have an interest in paying suppliers, in order to continue to receive their goods. Since almost all stages of payments became

centralised in the SSC, plant managers have an interest that all the processes preceding payment are executed correctly. Eventual non-compliances or other problems are increasingly detected by the network of OPPs involved in the payment process, leading to blockages of the normal administrative workflow. At an operational level, these blockages endanger the regular supply of goods to the plants, hence penalising the plant manager's production activities. This applies to the cases (already described) of procedures of fixed assets purchasing processes, embedded in IDAR and monitored by central actors, as well as other purchasing processes.²⁸

A third example relates to the rule embedded in SAP that the Bill of Materials (BOM) of any product must be valued, so that a production order can be introduced in SAP (see quotation and explanation in p. 493). The activity of production actors is halted if the financial perspective is not reflected in SAP. As CC respondent stated:

“Before, plants didn’t care about the issue of value. What they wanted was to produce, to deliver to the client. Now, people from production and logistics are more sensitive to issues of value – also due to the entropy introduced.” (approximate quotation)²⁹

The second example (regarding the interest of plant managers in the compliance of purchase processes requirements) highlights a wide range of influence of the OPPs.

²⁸ As an SSC member described, “You have to post the invoices, because if you don’t post [the invoices], you don’t pay. If you don’t pay the suppliers, (...) they stop delivering and the plant stops.” The respondent was commenting on SAP FI initial technical problems, but the description of the disruption in the relations with the suppliers is equally applicable to problems arising from non-compliance with prescribed procedures. Other respondents (e.g., those quoted in the previous subsection) contributed to this insight, highlighting how processual controls and blockages by the SSC created a dissuasion and self-disciplinary effect and contributed to reduce non-compliance.

²⁹ The control role of local actors should not be underestimated, either. For example, the same interviewee mentioned the importance of successive instances of control at a local level, as performed by the shift manager, then by the production manager, and then by the plant controller. “If the shift manager and the production manager [correctly] validate the information, the plant controller won’t have so many errors to identify – and ‘annoy’ the operational people...” (approximate quotation). This entropy at a local level does not derive from the network of OPPs that has been examined; however, this example does illuminate that the network of control actors is even wider than the (already wide) network of OPPs examined so far.

The OPPs may focus areas *other than* actors' core production area, and still affect the actors' capacity to produce – and hence their dispositions to accept, and even desire, the OPPs. The plant managers' core activity is mainly to produce industrial goods. However, they may be strongly affected by blockages introduced in the administrative processes by the SSC, through the use of technological solutions (e.g., SAP FI, IDAR). Therefore, that creates an incentive that plant managers promote, among the local actors directly involved with purchasing processes, compliance with defined rules.

Therefore, the OPPs, due to their pervasive embeddedness in organisational processes, had the power to affect dispositions of key actors beyond those whose activities were directly controlled by the OPPs (such as the local actors responsible for purchasing or, in the first example, the local actors of the accounting area). The OPPs fostered the acceptance of the rules of meaning and membership which central actors structurally embedded in the innovations and in the organisational processes upon which local actors depended to carry out their activities and “membership work” (Munro, 1999).

It should be noted that the scope of analysis considered in this contribution (as well as in the next two contributions) has necessarily to be narrow. The evaluation of the benefits (or losses) of the various actors from a given characteristic of an OPP only considers a narrow range of factors – those more closely related with the characteristic being analysed. In addition, no attempt is done to ‘quantify’ the ‘benefits and losses’ related to each characteristic and then evaluate ‘which is the greatest’. Neither the underlying phenomena nor the adopted research approach are amenable to such evaluation. The approach taken is to identify factors which promote certain repercussions, in a qualitative way. The ambition to holistically encompass all the

repercussions of all the features of an OPP (or, at an even wider scale, of the entire network of OPPs) is not to be tackled as a particular contribution. Instead, such ambitious objective of a holistic – and qualitative - evaluation is reflected in the overall characterisation of the case study, as a whole.

This contribution focused on the compulsory, unavoidable nature of OPPs for local actors to produce. Therefore, although it drew on actors' self-interests and dispositions (rather than impositions), it was still about a *negative motivation* (unavoidability) to obtain a *positive outcome* (production and successful membership work). The next contribution takes a more positive perspective.

7.2.5.4 OPPs direct benefits for local actors and the promotion of dispositions to desire OPPs and accept embedded controls

OPPs may also provide direct benefits for local actors – those actors who are also, simultaneously, controlled by the OPPs. Therefore, this contribution takes a more positive perspective, although still in the perspective of a balance between OPPs' positive and negative repercussions.

Various examples illustrate this insight. SAP FI was mostly introduced in already existing units, which previously used other financial accounting solutions. However, existing solutions were typically less sophisticated than SAP FI. Therefore, local actors had some direct benefits from using the new proposed (actually, imposed) solution.³⁰

³⁰ The appeal for new solutions should not be assumed to be universal – and it certainly was not universal within IndCo. The introduction of SAP logistic modules in IndCo implied the abandonment of the legacy

Although the SSC initially caused a huge shock and disruption in local units (in particular, due to the drastic reduction in the size of local accounting teams), the remaining actors gradually started experiencing benefits of having the SSC. According to the evaluation of a senior SSC member,

“Today, those local teams can realise the benefits, as regards reporting timings, the very quality of information and the relief they had in the transactional and reporting activities. We are the ones who report [to the Corporate Centre] for consolidation purposes. The moment they close their books, they have almost nothing to worry about, unless some fine tuning of the accounts.”

Naturally, such a positive evaluation made by an SSC member might always be suspect of potential bias. Another SSC member mentioned a regular internal satisfaction survey to the SSC clients (the local actors), focusing on aspects like posting timings and quality, quality of the replies and contacts established by the SSC. The SSC member informed that the survey results indicate an increasing satisfaction of local actors, indicating the benefits for local actors as critical in overcoming the initial great resistance to the SSC.

“There was a great resistance in an initial phase. In this initial phase, there were always criticisms about the quality of the SSC’s work (...). After some time, people recognise that things do operate well, and they even may be better than before. After all this time, you can tell perfectly that that [resistance] are gone-by waters.”

To triangulate the perceptions of central actors, interviews with local actors were therefore important. During the fieldwork, the local actors also conveyed a positive

solution (SOIC), developed in-house to fit exactly organisational processes and local needs. There was unanimity among respondents that the initial reaction of local actors to the replacement was precisely the opposite: strong dispositions to reject the new OPP. As an IT respondent recalled, the change was “*complicated! They didn’t understand the reason for the change. From their perspective, they had a system that worked well and they saw neither the need nor gains of changing*” (approximate quotation).

general idea about the SSC and some stated that they were also benefited by its existence. Notwithstanding, they could also be critical about some issues³¹. The empirical insights below express this variety of perspectives.

For example, a local actor argued that the SSC drew attention to important aspects from a financial perspective but which might be unnoticed by local actors due to daily pressures and urgencies. The respondent described the SSC as an “*independent entity*” and a “*control mechanism*” which “*helps a lot*”. The SSC was even described as bringing to plant level actors some “*tranquillity*” because the respondent knew someone else verified the correction of the work. The same respondent also expressed satisfaction about several benefits from another OPP, IDAR. However, simultaneously, the respondent criticised the lack of sensitivity of SSC members to “*how we work around here*” and some delays in approval processes.

Another local actor commented on the visibility made possible by SAP production modules. While he acknowledged that hierarchical superiors had a greater control about plant events, he added that the same applied to plant actors themselves, who also benefited from the visibility based on near on-line information.

As a final example (more could be provided, including additional examples below in this subsection), the implementation of the product costing module of SAP (SAP CO-PC) also brought some benefits to local *operational* actors. Local operational actors, *a priori*, would have scarce or no benefits from SAP CO-PC; indeed, various respondents argued that actors related with the operational area initially opposed, or at

³¹ This critical attitude increases the researcher’s confidence that those respondents were not trying to convey a false image of perfect compliance to, and acceptance of, central actors, as a precaution given the researcher’s presence through top management approval – always a potential risk, as already acknowledged.

least were not supportive, to the implementation of the module³². However, a CC actor stated they later benefited from the implementation of the module. In fact, local actors did not trust production times initially introduced in SAP production modules. The implementation of the CO-PC module (in those locations where the SAP production roll-out had already occurred, prior to the CO-PC roll-out) made such error become evident, in a financial perspective. This detection led to the revision of the production times, which in turn benefited local operational actors, leading to a more favourable attitude towards the financial module.

Therefore, as a conclusion, there was overwhelming evidence that the *OPPs frequently produced benefits for local actors*, not only for central actors. As such, local actors' benefits from the OPPs contributed to compensate the repercussions which negatively affected them. Therefore, direct benefits (beyond the mere need of the OPPs to produce, as focused in the previous contribution) were important promoters of local actors' dispositions to desire the OPPs and accept the rules embedded in those OPPs.

The last two contributions considered that OPPs' positive repercussions for local actors contributed to compensate the negative repercussions and hence promote appropriate dispositions towards those OPPs. The next contribution highlights a positive, or at least neutral, perspective: how certain OPPs enabled the *simultaneous attainment* of the objectives of both central and local actors.

³² The reasons for the opposition of local operational actors to the SAP CO-PC project are beyond the scope of this thesis. Very briefly, this opposition was considered to derive from two reasons. First, the project implied additional workload due to the massive revision of the Bills of Materials, which until then only reflected production planning needs (as analysed above in this subsection and in p. 493). Second, and importantly, the implementation of the CO-PC module became a part of the wide, recently started project of implementing the SAP production modules in the vast majority of plants. The association of both projects increased the complexity and risks of the SAP production modules roll-out.

7.2.5.5 Mobilisation of OPPs making central and local objectives compatible

The mobilisation of certain OPPs succeeded in creating a ‘win-win’ situation (or at least a ‘win-indifference’ situation), by implementing features which promoted the simultaneous achievement of both central and local objectives. The perspective at stake here is, therefore, positive (unlike in the previous insights about a trade-off between positive and negative aspects).

For example, certain features of the SAP FI parallel accounting solution promoted such compatibility of objectives. As already discussed, this remobilisation of the original SAP FI solution allowed the production of company-wide information, drawing from the common chart of accounts – hence creating a new benefit for central actors. Simultaneously, it continued to allow the production of information in locally relevant formats, drawing from the country-level, local charts of accounts – hence not implying the loss of the previous features. This ‘heteromogeneity’ (Quattrone and Hopper, 2006) of SAP FI is a clear expression of a win-indifference situation.³³

Other respondents provided insights suggesting that while some OPPs benefit central actors, there are mechanisms which enable that such benefits are not ultimately detrimental to local actors. A local actor thus explained his perception about the existence, location and rules of the SSC, relating them with the coexistence of formal or informal alternative mechanisms which prevent negative repercussions on crucial

³³ In line with the above acknowledgement of the narrow evaluation perspective adopted when analysing these contribution, this ‘comparison’ only considered the directly related perspective of the various actors obtaining financial information reports. This ‘comparison’ ignored other less direct effects (analysed in other parts of the discussion) which are not such as direct. An example of a negative repercussion over local actors which is being ignored is an increased control by central actors over the accounts structure, and hence ensuring that the models of the various countries would not diverge, as it had previously happened.

activities of local actors. This local actor started by arguing his indifference about the location of the SSC and his satisfaction about its day-to-day performance:

“The administrative part of each plant doesn’t bother us (...). The location where it is done, is irrelevant (...). The location of the invoices doesn’t add value to me. What matters is that the invoices are well controlled, and that the ones which should be paid actually get paid. (...) And that works fine, because we had to validate them in the system. (...) So, the centralisation of administrative activities has to be analysed from an efficiency point of view (...). From a plant point of view, a more centralised [administrative] management doesn’t create any problems to our work. It never bothered me. Assuming that in the plant we have to be rigorous and serious, and that we don’t do ‘strange’ things, the distance from the administrative activity shouldn’t bother us.”

The local actor went on to argue how informal mechanisms may prevent negative operational repercussions:

Respondent: *“What is really important is the industrial activity, and we didn’t lose any autonomy. The important thing is that we can easily make a request to buy something. And we are submitted to a discipline that sometimes can be seen as a constraint to deal with an urgent situation. But that doesn’t happen, because if something needs to be bought, we buy it anyway, with or without SAP, with or without authorisation. We have to do it, and we’ll be accountable later. [laughter] No problem. When something is urgent, no one sets administrative limits. We buy it, and that’s it.”*

Researcher: *If you buy a fixed asset, you need to enter it in IDAR. But if it’s urgent...*

Respondent: *[Making the gesture of picking up the phone] “‘Boss, I need to buy this now. And while we wait for the approval, I’ll buy it’. And he’ll tell you: ‘As you wish’. He can’t say ‘yes’, because the procedures must be followed; but you have to do it. (...) There are mechanisms which allow dealing with abnormal situations.”*

These quotes highlighted, in addition to insights analysed in other contributions (see, e.g., the quotes in pages 562 and 583), the perception that plant level actors’ operational effectiveness was not diminished due to the control mechanisms – in a

scenario in which local actors' decisions were aligned with the interests of central actors, and in which this respondent situated himself³⁴.

As a conclusion, some features of the innovations introduced by central actors facilitated the simultaneous achievement of both central and local objectives. This enabling role as regards local actors' objectives fostered positive dispositions among local actors towards accepting those innovations and the rules they embedded.

7.2.5.6 Minimise additional work for local actors' compliance – and increase work for non-compliance

Several central respondents stated their concerns about minimising, or eliminating altogether, additional workload for local actors to comply with central rules. There was awareness that compliance with centrally defined rules might imply an additional workload to local actors. Indeed, additional workload was one of the typical criticisms and reasons provided for local actors having negative dispositions towards OPPs

However, several central respondents stated their concerns about minimising, or eliminating altogether, additional workload for compliance to central rules. For example, the SAP FI parallel accounting solution had features addressing such concerns. As discussed in the previous subsection, one single operation of data entry originated information both in the common and in the local charts of accounts, satisfying both central and local interests. Therefore, and leaving aside restrictions such

³⁴ The analysis could also be expanded to explore the (alternative) scenario in which local actors “*do ‘strange’ things*”, i.e., contrary to the main interests of central actors. In such alternative scenario, should the network of OPPs achieve effective control, such ‘strange’ actions would be detected, hence clearly benefiting central actors. The potential of biased descriptions, acknowledged above, is clearly present in this particular quote. However, the crucial aspect is the theoretical outcome of this empirical scenario, more than the precise assessment of whether this particular respondent actually did “‘*strange’ things*”.

as opening accounts and adaptation efforts to the new solution, local actors did not experience an additional transactional workload during daily operations.

An IT actor thus described this concern, at a more general level:

“At a financial level, from a centralised perspective, it wasn’t required any more [information] than the one that was required when there was decentralisation. Because the information requested to the plants is still the same. (...) Before, the plants already had to have that information, to report to the corporate centre or to the centralising structure – otherwise, they wouldn’t be able to report. [The difference is that] we [at the centre] now have the details that the plants previously had – only they might not have them in SAP, and obtain them through other ways.

We have always tried to avoid (...) duplicating tasks [of local actors] or increasing the number of tasks to report to the centre. That was always taken into account. If it was possible to obtain detailed information without an added workload for the user... [we did it]. Hence the ‘user-exits’, which the system performed and the user didn’t even realise (...) and didn’t have additional work”.

This concern in not increasing the workload does not mean that local work practices were not affect, as it has been abundantly shown, e.g., as regards their timing or their sequence. In fact, some central actors (typically from the IT department or the SSC) argued that local actors’ perception of additional workload was sometimes erroneous. The same IT interviewee commented the increasingly residual, yet still persistent, creation of debit notes without adopting prescribed procedures. The rule which the local actors were supposed to enact was creating the debit notes in SAP’s Sales and Distribution (SAP SD) module. The alternative practice was either using a temporary solution developed in SAP FI or using Excel (a practice even more ‘outside’ the system and procedures) and then email the debit note for the SSC to post. The IT interviewee thus commented:

“[Some people] still think it’s easier (...) doing it this way [outside the system], than doing it through the system. If those people, one day, start doing it through the system, they will reach the conclusion: ‘Why did I do it, after all? I’m going to do it here [in the system]. I neither gain nor lose anything. (...) If I do it directly [in SAP and in the right module], the SSC won’t need to post it, I won’t need to send it and it is [immediately] integrated. I had to do it anyway’. So, there are no major gains or losses [to local actors]. It’s rather an issue of being uniform and doing everything in the same place. (...)”

It’s like purchasing processes. If I do an order over the phone, and then, when the invoice comes, I enter the purchasing order in SAP... I didn’t have less work. I just didn’t do it at the right time.

Anyway, those [still remaining problems] are already insignificant. The major work has been done. Now, only small details are missing.”³⁵

Therefore, whenever compliance with the rule embedded in the OPPs and the OPPs network did not require additional effort from the local actors, a *disincentive for rule non-acceptance and non-compliance* was avoided.

The opposite incentive was also found: non-compliance by local actors entailed additional work for them. Non-compliance did not just imply entropy on organisational processes which were crucial for local actors, as discussed above in page 571. Non-compliance, when detected, also implied substantial rework from the local actors.

Several respondents analysed this, in particular as regards the various modules of SAP. An interview with an IT respondent was particularly vivid and illuminating (see an extended transcript in the Appendix as quotation #4): “[Operational] people, because they know the trouble of retrieving all the information a posteriori, think twice before they do such a thing [failure to enact a rule]”.

³⁵ This interviewee seemed to assume that only the amount of time was important for local actors. However, the timing and the order in which actions are performed are sometimes crucial for local actors when they perceive that a particular operational problem requires an immediate purchasing order, as discussed above.

This insight is in line with Volkoff *et al.*'s (2007) case study analysis: “the ES [Enterprise System] served to embed sanctions for poor work performance and for any performance of routines that was inconsistent with ES-embedded work practices. As a consequence of these implicitly embedded sanctions, a culture of disciplined work emerged as workers came to recognise that the ES only worked smoothly when they performed their work routines with strict discipline. (...) ‘if you try to do the end-around, it just adds more time to your process, so do it right the first time.’” (p. 842)

It is acknowledged that such these two insights are likely to be universal. As regards the first one (trying that compliance does not require an additional effort from local actors and hence avoiding a disincentive for non-compliance), it is unlikely that any actor wishes to have an additional workload, especially if this workload is due to requests and interests of other actors, rather than self-interests. The second insight reflects a trade-off: the benefits from non-compliance (e.g., quickly shipping to the client) vs. the resulting high additional workload. However, as the additional workload and required efforts increase, the trade-off will increasingly tend towards compliance and self-discipline.

Since these insights are likely to be universal, the inherent theoretical contribution is reduced. However, the contribution is still valid, for two reasons. First, it highlights two pragmatic aspects that designers of control systems (including management control systems) should consider. Second, the contribution is more pertinent considering a structural organisational change after the creation of the SSC: the significant reduction of the local teams. This is now analysed.

7.2.5.7 Scarcity of local resources

Scarcity of local resources was found to promote the acceptance of some OPPs and rules, and abandoning others – in particular, rules reflecting exclusively local concerns and therefore requiring the allocation of resources to satisfy exclusively local concerns.

In fact, after the creation of the SSC, local accounting teams were drastically reduced. Although this reduction of resources was accompanied by a reduction of the activities attributed to the local teams, a potential previous organisational slack at a local level was likely to have been reduced. As an IT actor argued, such reduction was an incentive for local actors to start, right from the start, producing information compliant with the information requirements of the centre:

“Additionally, as you start creating those central functions, you start reducing those same functions at a local level. People start not having time. So, they have to find solutions to avoid work duplication.”

A limited prior allocation of resources, associated with increased compulsory requirements by increasingly powerful central actors (as discussed above in this subsection), functions as an incentive for local actors to be selective as regards their allocation of time and other resources. Confronted with limited resources to carry out several tasks, local actors had incentives to only produce the information which they compulsorily had to present to central actors – hence ceasing the enactment of some rules with an exclusively local perspective.

Therefore, solutions allowing to simultaneously satisfy the needs of several actors (as discussed above) become particularly appealing. Such was the case of integrated solutions, such as SAP, based on one single point of data entry in a common structure and which then made information available in multiple formats, according to the differentiated needs of the various actors. The SAP FI parallel accounting solution is a particularly adequate example, but the same rationale was present in other innovations.

As already mentioned, these repercussions are neither deterministic nor absolute. A clear *opposing* example was obtained at a local site. The respondent argued that SAP CO-PC reports do not include a particular indicator used for many years in that site and which local actors continued to require. Therefore, they had to calculate this particular indicator using non-SAP tools, in addition to the standard SAP reports. In this case, scarcity of resources was clearly not impeditive for the continuation of enactment of local rules of meaning (concerning the concept of this indicator) and membership (concerning the usage of non-SAP calculations). However, this opposing example does not invalidate this contribution - which merely argues that scarcity of resources at a local level promotes a greater selectiveness on the information to be produced and that, confronted with increasing and compulsory requests from central actors, local actors have incentives to focus on these, rather than on site-specific ones.

7.2.5.8 Perception of inevitability

Several respondents acknowledged the perception that the enactment of rules of membership misaligned with central actors' objectives would *inevitably* be detected and countered. Such perception of *inevitability* was an important promoter of self-discipline.

Perceptions of inevitability have already been discussed, but usually in the context of the analysis of other perspectives (e.g., automatic enactment by IS; visibility; necessity to accomplish current activities, etc.). This contribution provides an autonomous emphasis to the perception of inevitability as a promoter of the enactment of desired rules and as dissuasive of the enactment of undesired rules.

The perception of inevitability gives rise to the application of a “rule of anticipated outcome”³⁶. A local actor vividly illustrated this rule, focusing on the dissuasive effect of emergent organisational structures in enacting rules of membership not aligned with the interests of central actors. The issue at stake was the redistribution of orders across plants, to equilibrate activity levels at a global level. However, there was resistance from some directors whose orders were withdrawn, as the respondent described:

“Recently, the company [i.e., centrally] ordered a redistribution of orders among plants, to equilibrate activity levels. Depending of the plant, that redistribution is easier or more difficult. There are plants which resist that orders are taken away from them. And should it be an activity that requires the support of the plant which will lose the orders – due to raw materials, e.g., the plant will resist or not according to the attitude of the plant director, as regards facilitating the transfer of that order to another plant. That happens. There are all sorts of situations. In general, I think there is a

³⁶ The expression “rule of anticipated outcome” was inspired by Bachrach and Baratz’s (1963) “rule of anticipated reaction” (p. 635). However, these authors used it within a more complex, and partly inverse, perspective. Bachrach and Baratz (1963) described a scenario in which “though B regularly accedes to A’s preferred courses of action, A in fact lacks power over B because A just as regularly tailors his demands upon B to dimensions he thinks B will accept. As an illustration, if the President submits to the Congress only those bills likely to be palatable to a majority of lawmakers, he can hardly be said to have power over the Congress simply because all his proposals are enacted into law.” (p. 635) Bachrach and Baratz used the expression to illustrate how the “powerful” side may anticipate the reaction of the “less powerful” actors and in anticipation adjust his demands within the latter’s preferences. This thesis uses the expression to refer to how the “less powerful” and controlled side may anticipate that the outcome of a potential deviation from established rules will be its detection by the “more powerful actors” or by the network of control OPPs they established. Such detection will trigger a reaction from the “more powerful” actors, directly or through other actors of the network, which will be detrimental to the “less powerful side”. Therefore, *anticipating such outcome*, the “less powerful side” is likely to adjust its demands accordingly.

positive disposition towards thinking about the group. But there are very 'localistic' situations." (slightly edited transcript)

However, the creation of centralised organisational structures, with formal power over plants, has been countering that approach, challenging the rule of defending the interests of the individual plant against the interests of the group. The same respondent continued:

"[As regards structures to overcome a traditional 'localistic' focus, there is an introduction of a] centralised culture... Eg., the centralised logistic structure intervenes, if required, to achieve such adjustment [transfer of orders across plants]. But it's a struggle. So, sometimes it intervenes. 'Why should you be struggling about that topic, if it's not a topic to struggle about? (...)' But we understand each other increasingly better, because there are sufficient structures. (...) You can say 'I'm going to resist, but what for? If later I am going to be 'squeezed' through that mechanism, and I'll have to accept?'. People gradually realise that, by devotion or obligation, we have to cooperate towards the group."

Therefore, an organisational innovation in the circuit of system integration (the centralised logistic structure) become another Obligatory Passage Point and has increasingly fixed, structurally rather than episodically, new rules of membership. The plant directors' increasing awareness that any resistance will eventually be overcome by an episodic exercise of power by the organisational structure has been creating consent, even among those who tended to resist to globally-oriented decisions. So, either "by devotion or obligation" (consent), plant directors have started to adopt and enact more globally-oriented rules.

The same self-disciplinary effect of this "rule of anticipated outcome" can be detected in many empirical situations already described, related to innovations introduced in the circuit of system integration. When the innovations attain an OPP

status, perceived by controlled actors as such (i.e., obligatory, unavoidable), the controlled actors are more likely to enact the “rule of anticipated outcome”. This promotes that local actors pre-emptively enact rules not attracting upon them the negative consequences perceived to follow a (perceived as) inevitable detection of deviations.

The chosen example to introduce and illustrate the “rule of anticipated outcome” is also a very clear case of removing certain topics from the political agenda. “*“Why should you be struggling about that topic, if it’s not a topic to struggle about?”*”. The perception of a structural fixing of material conditions promoting central control, detection and potentially disciplinary actions has achieved an important power effect: controlling the political agenda (Bachrach and Baratz, 1962, 1963).

Indeed, the depicted situation (taken in isolation from the wider effects related to the networks of OPPs) corresponds to Bachrach and Baratz’s (1962, 1963) ‘elitist’ perspective, what Lukes considered the second dimension of power (see 3.1.2 “The two dimensional framework – extending beyond the visible”). Disputes were avoided by removing those local objectives (derived from underlying rules of membership) from the political agenda. Local actors were confronted with power structures perceived to make any resistance futile. Therefore, potentially resistant local actors become aware, through the “rule of anticipated outcome”, that it was better not to bring that topic to the political agenda, because they would not be able to win the ensuing dispute.

Aggregating the last six contributions

The last six contributions (7.2.5.3 to 7.2.5.8) made a number of propositions. It was proposed: that some OPPs became indispensable for local actors to produce; that some features of OPPs provided direct benefits for local actors; that some features of OPPs made central and local actors' objectives compatible; that mobilisation of OPPs tried to make compliance not to imply additional work from local actors and, on the contrary, made non-compliance imply substantial additional work; that, related to the previous contribution, some OPPs addressed the constraint of scarcity of local resources; and that some OPPs created the perception of inevitability of compliance among local actors.

The six contributions have different emphases on positive or negative perspectives. However, the first five of them reflect one common insight: that they produced a situation which was “*both non-zero sum and served the self-interest of the players*” (van Marrewijk *et al.*, 2008, p. 599, emphasis added). Even when some misaligned interests still prevailed, the mobilisation of OPPs contributed to also satisfy, entirely or at least partially, the self-interest of the actors subjected and controlled by the OPPs network. The ways OPPs were mobilised created either *advantages or the absence of disadvantages* to local actors. And these advantages (or absence of disadvantages) contributed towards making them willingly accept the embedded rules and the higher visibility and tighter control by the various central actors – a visibility and control which the local actors indeed acknowledged. This way, rather than mere consent through imposition, there was also a positive disposition towards the network of OPPs and the rules embedded in it.

Even the strong negative perspective of the seventh contribution, regarding the perception that potential non-compliance would inevitably be detected and countered, had an underlying pursuit of self-interests. The enactment of the “rule of anticipated outcome” by local actors is, actually, the option which “best” serves their self-interest, considering their perception of the impossibility to avoid the organised network of control OPPs.

The next, and last, two contributions reflect a different perspective, of more subtle and deeper perceptions and embedding of control. They analyse actors’ perception that OPPs were natural and they analyse how control also became more discretely pervasive through its embedding in organisational normalcy.

7.2.5.9 Perception of the naturalness of control

Both central and local actors mentioned the perception that it was “natural” that control OPPs existed, entailing the acceptance and enactment of some devices and rules related with central control³⁷. Such perceptions of ‘naturalness’ correspond to an unquestioned acceptance of the *existence* of control devices and rules - in an abstract way, regardless of particular control devices and rules.

The contribution does not reside in identifying such perception of ‘naturalness’ – a perception basically in line with generalised organisational characteristics and extant literature. The contribution lies in highlighting that the perception of ‘*naturalness*’ is related with the perception of ‘*inevitability*’ and entails the perception that control, or at least *some* control, is “something one cannot be against”; therefore, control OPPs may

³⁷ As an example, a local actor accepted that “[i]t’s natural that such a large company, with so many plants, has a control system. It’s normal, logical. (...) It seems reasonable to me” (quoted above in this section).

“seem ‘imperatives’ no one can oppose” (Busco *et al.*, 2007, p. 130; also Quattrone and Hopper, 2006). In other words, this perception affects *attitudes and reactions* towards those innovations and *promotes a lower level of resistance*.

Perceptions of inevitability have already been discussed and related with lower potential resistance, in relatively specific matters, as reviewed in the previous contribution (as a result of automatic enactment of rules by non-human actors, as a requirement for local actors to produce, as a constraint driven by scarce resources or as the triggering factor for the enactment of the “rule of anticipated outcome”).

However, the ‘inevitability’ perception is now identified at the wider level of control. Moreover, it corresponds to a more fundamental type of imperative, when compared with the perceptions of “inevitability” of OPPs and rules analysed above. In fact, this perception of the naturalness of the existence of control and rules creates an imperative based on the institutional realm, of the taken-for-granted ways perceived as supposed to be present in organisational life.

The abstract, generalised level of this perception (since it refers to the mere concept of the existence of control and rules) is limited in ensuring the acceptance of *particular* control devices and rules. However, it is a fundamental pre-requisite upon which additional perceptions and dispositions may develop. It is a broad institution, providing a basilar support at the level of the circuit of social integration to the implementation of concrete innovations in the circuit of system integration to increase the control and relational power of central actors. And, by providing this basilar support to these innovations, this broad institution also provides a basilar support to the

repercussions that these innovations are expected to promote in the circuit of social integration.

7.2.5.10 Innovations and control within organisational normalcy

The various innovations, collectively, became a organised network of Obligatory Passage Points, embedded in organisational processes. This embeddedness allowed that the control functions of the innovations became also embedded in organisational processes. Furthermore, control became a pervading feature of organisational processes, rather than merely, and exclusively exercised by a given, identifiable entity to which control functions had been attributed. As argued above, it became a “collective affair” (Dechow and Mouritsen, 2005, p. 691).

Organisational processes are organisational life. Without processes (with more, less or no formalisation and structuration), there is no organisation – at least, an operative one. So, organisational processes constitute the normalcy of organisational life. The (commonsensical) recognition of the normalcy of organisational processes takes a particular importance considering that the innovations introduced in the circuit of system integration, that the OPPs promoting the interests of central actors, became embedded in organisational processes. Control OPPs, as techniques of discipline and production and embedding and promoting rules of meaning and membership, became an integral part of many organisational processes, of the daily workflow. One of the clearest examples of such achievement concerns the SSC. Like stated by an interviewee of the SSC researched by Seal and Herbert (2005, p. 16), the SSC in IndCo ““has very much been cemented in as being part of business as usual””.

Clegg *et al.* (2006, p. 293) noted that “[n]aturalness is necessary for social life to proceed (...), but it effectively hides the processes of social construction that underlie everyday social reality”. In IndCo’s case, important aspects of control became a part of organisational normalcy, and it became less visible. In a Foucauldian perspective, normalcy is where power becomes most effective. And normalcy is where researchers should look for power – even if, or precisely because, it is less visible.

7.2.6 SUMMARY OF SECTION AND CHAPTER

This section, along with the previous one, proposed and discussed a number of contributions emerging from the interpretation of the case study, regarding the repercussions of innovations introduced in the circuit of system integration. The technological and organisational innovations emphasised were SAP FI, the SSC and the CC. In addition, other innovations were also mentioned, such as other SAP modules, the IXOS and IDAR solutions, the INDBEST and BPO departments and other organisational structures.

The overall objective of this section was to identify and explore the multiple and intertwined ways in which these innovations contributed towards attaining the interests of central actors, by promoting the acceptance and enactment of rules of meaning and membership. The main empirical insights and contributions were depicted in the middle, left area of Figure 7.1 - hence completing the overall argument of the chapter, started in the previous section.

This section first contributed towards development of knowledge by empirically testing hypotheses proposed in the literature (Ribeiro, 2003, as suggested by Modell,

2005; Scapens, 1990; Yin, 2009; see section 4.1), although this was not a primary aim of the research. This case study supported the hypotheses suggested by Ribeiro (2003). This confirmatory perspective is a contribution towards wider research programmes of “studying intra-organisational change in a processual manner” (Ribeiro and Scapens, 2006, p. 95) and in particular adopting a Foucauldian and ANT perspective of power, in line with the “successful and progressive research programme” triggered by Foucault (as recognised by Lukes, 2005, p. 98). Then, this section reinforced the emphasis on the innovations *collective*, as *organised networks of diversified and dispersed elements*, producing *cumulative, reinforcing or compensating repercussions*. This emphasis had already been introduced in the previous section, regarding the repercussions on the circuit of system integration; this section reinforced this emphasis and expanded it to the repercussions on the circuit of social integration.

This section also proposed more innovative contributions. This section highlighted that Ribeiro’s (2003) hypotheses were also valid in a very *different empirical setting*. This different empirical setting concerned a very distinct functional area (accounting and finance) and a very different type of activity (the production of financial information and control), while also drawing on examples from other functional areas and activities. This section also highlighted that innovations defining the scope of agency of various actors impinged on *rules of meaning and membership regarding the role of actors* – especially as regards local actors whose boundaries of potential (and excluded) agency were particularly targeted by the innovations.

This section also discussed several factors promoting favourable dispositions to desire or at least accept OPPs, and to accept and enact embedded rules - even if they were conducive to an increased control. It was highlighted that some OPPs involved in

control were also crucial for local actors to produce and carry out ‘membership work’ related to their core organisational activities; some OPPs also provided direct benefits to local actors, who would also be subject to an enhanced control by those OPPs. OPPs were also sometimes mobilised in ways promoting central and local objectives compatible and simultaneously achieved. In addition, actors mobilising the innovations attempted to minimise the additional work required for local actors to comply and enact desired rules; on the contrary, non-compliance might imply an increased workload. A greater scarcity of local resources and the perception of inevitability were also discussed. Finally, the section concluded analysing wider repercussions, concerning the perception of a central control being ‘natural’ and how innovations and control became a part of organisational normalcy, of ‘business as usual’.

All these factors promoted favourable dispositions to desire or at least accept OPPs, and to accept and enact embedded rules – in *cumulative, reinforcing or compensating ways*. This overall repercussion on the circuit of social integration was relevant to reduce one of the initial problems of central actors, as highlighted in the previous chapters (subsections 5.4.5 and 6.2.1): central actors’ low ‘trust-in-(local)-persons’ (Giddens, 1990; Moilanen, 2008). As discussed, this low trust-in-persons was related to the enactment of rules of meaning and membership which privileged the local level. Therefore, the innovations also promoted the interests of the actors that had introduced the innovations, by affecting the circuit of social integration and, through it, the realm of action, in actual, episodic relations between actors during everyday organisational life.

However, it should be noted that innovations and their repercussions did not produce total homogeneity, consensus and compliance. The example provided when

inevitability was discussed (see above, p. 586) highlights the persistence of misaligned interests among the various actors (central vs. locals, and locals among them) – even when overt conflicts diminished. Therefore, although the political agenda became constrained, by an increasing perception that particular issues should not be discussed or argued against, the actors were not “alienated”, as in Lukes’ (1974 / 2005) third dimension. Therefore, the existence of “sufficient structures” was important to *solve* disputes which emerged (i.e., related with overt conflicts) *and* to *avoid* disputes removing local objectives from the political agenda (agenda control). Ultimately, these “sufficient structures” promoted the acceptance and enactment of the rule of membership (in the circuit of social integration) that there should be cooperation between plants. However, it was apparent that such effects did not alienate the actors (Lukes’ third dimension of power) or, in institutional theory terms, the rule did not become unconsciously taken for granted, or institutionalised (Burns and Scapens, 2000). *Local interests still remain diverse* and potentially opposite, both between themselves and as regards the interests of central actors, reflected in what the respondent described as “‘*localist*’ situations”. And diversity of interests is a powerful source of instability within circuits of power, whose effects may only be contained, but are unlikely to be eliminated, by formal rules or material conditions.

The next chapter builds on the insights and contributions discussed so far, to propose more generalised theoretical developments to the literature in power and institutional theory. To do that, the next chapter attempts to contribute to the development of the theoretical frameworks which inspired this research: Clegg (1989) and Burns and Scapens (2000).

CHAPTER 8 – THEORETICAL DEVELOPMENTS

8.0 INTRODUCTION AND OUTLINE

This chapter proposes developments to the theoretical fields drawn upon in this work: power and OIE. The first proposed development, in the first section, is a *refinement* of *Clegg's (1989) framework of 'Circuits of Power'*, comprising changes in its graphical layout, linkages and even concepts. It should be noted that these proposals add to the various contributions proposed in the previous chapter, also strongly based on Clegg's framework.

In the second section, an *ANT-inspired, OIE model of rule-based action* is proposed. It draws on Burns and Scapens' (2000) 'macro' structure of the realms of institutions and actions, and on some key concepts. However, beyond that, it is actually a totally different model. Some salient distinctive features can be preliminarily highlighted. The model depicts intra-organisational diversity in institutions, interests and capacities. It focuses on the processes of introduction, interpretation, acceptance and enactment of rules, relating them with material conditions. The model distinctively considers non-human actors (in this case, technological actors) and how rules may become technologically embedded (as well as embedded in organisational processes). The final distinctive characteristic is the concept that technologically embedded rules may be directly enacted by the non-human actors and may also influence processes of interpretation, acceptance and enactment of rules by human actors, at the realm of episodic action.

8.1 REFINING CLEGG'S FRAMEWORK OF 'CIRCUITS OF POWER'

8.1.1 THE REVISED MODEL AND CONTRIBUTIONS: INTRODUCTION AND PRESENTATION

This section suggests some developments to the framework of 'Circuits of Power', proposed by Clegg (1989). These developments were based on case study insights and on theoretical reflection, which in turn was based not only on the literature in general but also drew from Clegg's own work. It should be emphasised that this theoretical reflection would have been extremely unlikely to be achieved had it not been the systematic, intensive and extensive deployment of Clegg's framework as theoretical lenses to explore the case study empirical material. Therefore, the case study provided more than empirical insights: it promoted an in-depth understanding of the model which was invaluable for the identification of suggestions for theoretical development.

Clegg's framework, both in terms of its graphic representation and in its interpretation and terminology, has already been adapted by some authors (Ribeiro, 2003; Taylor, 1995). Other authors adapted the interpretation and terminology, while reproducing the same figure (or not showing it) (Davenport and Leitch, 2005; Lagendijk and Cornford, 2000). However, these adaptations were mostly simplifications or mere modifications of the original framework, especially in graphical terms, with no substantive suggestions for improvements or overcoming of eventual shortcomings.

This section aims at making a more substantive (though not claiming to be revolutionary) contribution, ranging from changes or additions to the graphical depiction of the framework, to conceptual modifications and new linkages. The revised

model of 'Circuits of Power' is presented next (Figure 8.1). Changed concepts are written in red and changed linkages are depicted in thicker, red arrows.

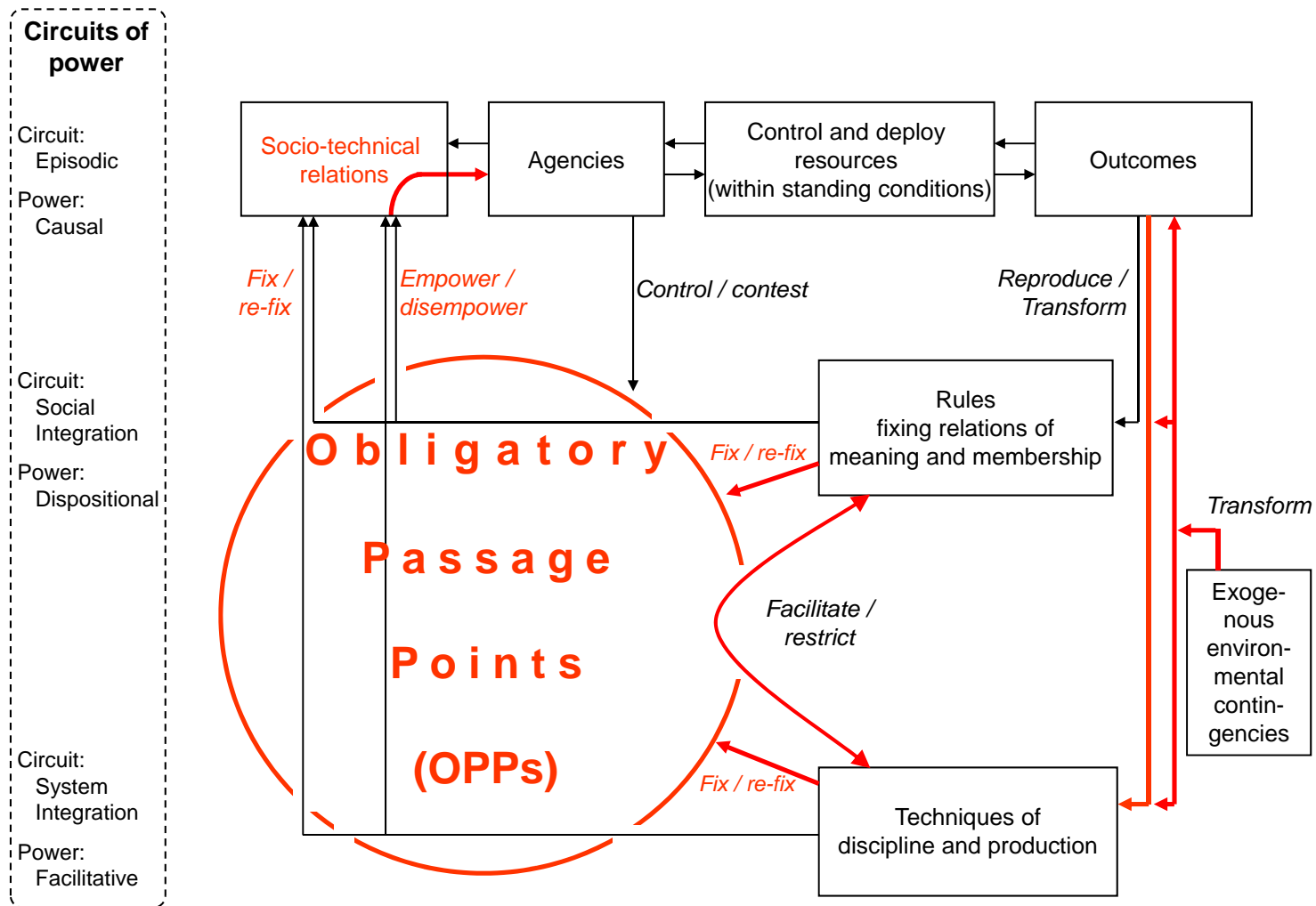


Figure 8.1: Revised model of ‘Circuits of Power’
(Source: Developed by the author, based on Clegg, 1989, p. 214; also Ribeiro, 2003, p. 73)

The figure reflects six areas of improvement, and each one is discussed in the following subsections. The first suggestion is the vertical expansion of the Obligatory Passage Points (OPPs) element and the clarification of their relationship with rules and techniques. This suggestion is, above all, a reconciliation between Clegg's textual analysis and the framework. In addition, it is also a required foundation to the ensuing suggestions.

The second, third and fourth suggestions are arguably the most significant contributions. The proposed changes are: the inclusion of a bidirectional, curve arrow linking rules and techniques, passing through extant OPPs; the conceptualisation of 'socio-technical' relations, instead of 'social relations'; the conceptualisation of rules and techniques fixing socio-technical relations and empowering agencies (as discussed below, this third suggestion actually includes two related suggestions).

The fifth suggestion concerns the endogenous reproduction and transformation of both rules *and* techniques, and it represents another reconciliation between Clegg's textual analysis and the framework. The sixth suggestion is the inclusion of a link between exogenous environmental contingencies and the episodic circuit. Although less significant, the three fine-grained suggestions (the first one and the last two) may prevent misleading interpretations of the framework and, hence, are believed to be valid. Each suggestion is discussed next, in a separate subsection.

8.1.2 VERTICAL EXPANSION OF THE OBLIGATORY PASSAGE POINTS (OPPs) ELEMENT AND CLARIFICATION OF OPPS RELATION WITH RULES AND TECHNIQUES

The Obligatory Passage Points (OPPs) element was vertically expanded, to encompass both circuits of social and systems integration. This graphical change intends to make visually clear that the OPPs do not involve only fixed rules (as it *could*, in a more hasten interpretation, be suggested by the original position of the OPPs element, at the same horizontal level as the rules). This clarification is important to clarify that OPPs may be not only fixed rules, but also fixed *techniques*.

This rationale is, indeed, present in Clegg's own thoughts: "each of the circuits of social and system integration will have to (...) fix [] obligatory passage points" (Clegg, 1989, p. 225). In addition, and so that no doubts remain, he referred to the "'obligatory passage points' that system (and social) integration circuits potentiate" (Clegg, 1989, p. 236). Furthermore, the original figure was, in this regard, correct, since the OPPs element was also crossed by the arrow departing from "Techniques". *However*, the position of the OPPs element only at the level of the rules may have *misled* authors like Taylor (1995) - who, both textually and graphically, incorrectly only associated the creation of OPPs to the circuit of social integration, and not to the circuit of systems integration. Hence, this (merely graphical) suggestion.

As a logical derivation from the above, since not only rules but also techniques constitute OPPs, the 'fix/re-fix' indication was included in *both* links from rules *and techniques* to the OPPs. Since the original model only linked rules to OPPs, the 'fix-re-fix' indication was only restricted to this relation - a representation which may have

further contributed to the misinterpretation noted in the previous paragraph. (This ‘fix/re-fix’ effect is further analysed below).

The case study also provided ample evidence that not only the circuit of social integration, but also the circuit of system integration, are involved in the constitution and preservation of OPPs. Techniques introduced in the circuit of system integration may become *themselves* OPPs. One example is the technological innovation SAP FI becoming the sole tool to carry out financial accounting operations. Another example is the organisational innovation of the SSC becoming embedded in the organisational processes and therefore becoming virtually unavoidable, even if indirectly, in the accomplishment of many of the actors’ objectives and tasks.

In fact, if it were not for the inclusion of yet more content in what is already a rather complex framework, the expression ‘constitute / replace’ would be added to the ‘fix/re-fix’ expression, to convey the potential of rules and techniques to become structural and obligatory points of passage, eventually replacing extant ones.

Each circuit of power does not operate independently; on the contrary, this fixing of OPPs results from the simultaneous and interactive influences of both circuits. This is analysed in the next suggestion.

8.1.3 A BIDIRECTIONAL, CURVE ARROW LINKING RULES AND TECHNIQUES, PASSING THROUGH EXTANT OPPs.

This suggestion complements Clegg’s emphasis that prevailing rules can facilitate or restrict the actual adoption and acceptance of new technologies – a capacity graphically

depicted in the original framework by the downward arrow from ‘rules’ to ‘techniques’. It is now suggested a similar, though reverse, potential influence of techniques over rules; therefore, the first part of this suggestion entails adopting a *bidirectional* arrow between rules and techniques. In addition, it is suggested that such mutually constitutive potential of both rules and techniques is intermediated through the entire network of extant OPPs; therefore, the second part of this suggestion is that the directional arrow should be *curve, passing through extant OPPs*. The two parts of the suggestion are analysed next, separately.

8.1.3.1 A directional arrow between rules and techniques

Clegg argued that the circuit of system integration (i.e., techniques) “is the major conduit of variation [i.e., change] in the circuits of power” (p. 233), inducing potential instability and transformation through the creation of new OPPs. Furthermore, considering exclusively Clegg’s *text* (rather than the graphical framework), the potential of techniques (circuit of system integration) to influence *rules* (social integration) is present, always in a contingent perspective.¹ However, the potential of new techniques to change or fix rules was *not* depicted in the graphical representation of the framework. Clegg’s strong objection to technological determinism may have led him to avoid graphically emphasising such potential influence. However, such potential influence is relevant, and improvements in this area are now proposed, based both on the literature and on empirical insights.

¹ The following extract from the conclusion of Clegg’s chapter on ‘Circuits of Power’ is representative: “Whatever sources of system disintegration or contradiction actually lead to transformation and a new practice of rules will depend upon the network of power and passage points that are achieved through episodic power’s configuration of the organizational field at the level of social organization” (Clegg, p. 239).

Literature deploying Clegg's framework has suggested that the introduction of new techniques may have an impact on rules. Ribeiro (2003) made a particularly strong case for this and, consistently, his graphic adaptation of the framework included a link from 'techniques' to 'rules'². Lagendijk and Cornford (2000) also emphasised the capacity of technology to change rules and, as a more extreme case, Taylor (1995) had a highly technologically deterministic discourse³.

Beyond the circle of authors who have applied – and adapted – Clegg's framework, one of the main inspiring sources for Clegg himself, Foucault, can be cited. “[W]ithout any physical instrument other than architecture and geometry, [the Panopticon] acts directly on individuals; it gives ‘power of mind over mind’” (Foucault, 1975/1977, p. 206), i.e., affecting the rules of individuals' behaviour. Analysing the technique of incarceration through prisons as described by Foucault (1975/1977), Clegg concluded that “[i]ncarceration along traditional lines serves only to tighten the webs of criminal membership and meaning for most inmates” (Clegg, 1989, p. 235) – again, techniques influencing rules of meaning and membership (although clearly in an unintended direction!).

The *empirical insights* obtained during the case study also provide ample evidence to suggest that innovations introduced in the circuit of system integration *can influence rule acceptance and enactment* in the circuit of social integration (although in non-linear ways, hence supporting Clegg's rejection of determinism). The examples above and, in particular, the in-depth discussion in section 7.2 provide an extensive support to

² It should be noted that Ribeiro (2003) was well aware of the importance of rules, in their “indexicality” and in the way they affect the introduction of new techniques. However, the original link from “rules” to “techniques” was missing in his work – a mere mismatch between the graphical depiction and of his own understanding of the framework, as a personal communication with the author came to confirm.

³ See chapter 3, page 165, footnote 32 for criticisms to Taylor's (1995) excessive technological determinism and the inconsistency and incorrectness in his graphical representation of the framework.

this point, which is not repeated here. Technologies may influence the way rules are established and fixed, the way they are operationalised and enacted in organisational practices. The interdependence, the mutual influence, of the circuits of social and system integration is a main consequence of the integrated nature of the framework. Together, they are involved (actually, co-involved, as discussed below) in the creation of OPPs, either rules-based or technology-based.

Therefore, in the new, proposed framework, the original unidirectional downward arrow from rules to techniques is replaced by a *bidirectional arrow*. The option for a *single* bidirectional arrow (rather than the alternative of opposite two arrows) intends to convey a notion of interdependence, far more adequate than a hypothetical opposition between them (social integration strictly as a stabiliser, versus system integration strictly as a destabiliser).

8.1.3.2 A curved bidirectional arrow between rules and techniques

The second part of the suggestion entails depicting a *curved* arrow, *passing through extant OPPs*. The mutual influence between rules and techniques goes beyond simple, direct effects such as ‘rule *A* affects the adoption of technique *B*’. This mutual influence between rules and techniques is shaped by the whole array of extant OPPs, constituted by all the rules and techniques which have become (previously or concomitantly) fixed.

Given the multiple origins of the OPPs (multiple rules and techniques, introduced by various actors with distinct objectives), OPPs may potentially (even most likely) enter into conflict. They constitute different conduits of power, and they may enter into conflict to become the prevalent passage point(s), while making competing ones

become ‘less obligatory’, easier to be circumvented. Therefore, any actor attempting to establish a new OPP through a new rule or technique is faced with a maze of competing OPPs, i.e., with other competing rules and techniques. In other words, it involves far more than only ‘rule A’ and ‘technique B’.

Therefore, the (*now bidirectional*) arrow linking rules and techniques has been made *curve*, in order to *pass through* the OPPs element.

8.1.4 INDICATION OF ‘SOCIO-TECHNICAL’ RELATIONS, INSTEAD OF ‘SOCIAL RELATIONS’

8.1.4.1 ‘Socio-technical’ relations: an ANT perspective

Clegg’s framework depicted ‘social relations’ occurring among agencies, in the episodic circuit. By using the term ‘*social*’, Clegg seemed to be encompassing exclusively human actors - which, in ANT terms, can be either individual or collective. However, one of ANT’s distinctive traits is that actors can be not only human but also non-human - ‘material’ entities, like machines or ERP software⁴ (e.g., Callon, 1986; Hyvönen *et al.*, 2008; Lodh and Gaffikin, 2003). As cited in section 3.4, Andon *et al.* (2007, p. 276) summarised that “ANT explores processes and relational effects within socio-technical networks of elements”.

At this point, Law’s (1997) discussion about heterogeneity and materiality is appropriate: “social relations aren’t simply social. Instead they are inserted into other materials. Or (let’s make this symmetrical) the relations of other materials are inserted into what we sometimes call ‘the social’. (...) For relations are, yes, materially

⁴ As argued in section 3.4, non-human *living* entities (e.g., germs) are likely less relevant in organisational issues and are not considered within the concept of non-human actors in the ensuing discussion.

heterogeneous. They take the forms that they do, if they do (and they do so only contingently and often enough precariously) because they are performed, held in place, in a variety of different media: words; bodies; texts; machines; buildings. All mixed up. Materially heterogeneous.” (Law, 1997, p. 4). I.e., social relations are, actually, *socio-technical relations*, combining heterogeneous actors, human (social) or technological. Hence, this section suggests replacing in the framework the original element ‘*social relations*’ by ‘*socio-technical relations*’.

Some authors suggested that the importance of socio-technical *relations* supports the ontological suggestion of conceiving an ERP as a socio-technical *actor* (i.e., considering a ‘social’ aspect in the ERP actor). E.g., Wagner *et al.* (2006) discussed the agency of a technological actor such as an ERP and its power over human actors (in the sense of power as a capacity; see chapter 3): “Once a standard is reified as a best practice and becomes inscribed into the material infrastructure of an organization through information systems like ERP it gains technological agency. As a *socio-technical actor* it then acquires the capacity to configure users, condition organizational options, and shape industry imagination” (p. 260, emphasis added)⁵. However, such conceptualisation of the ERP as a socio-technical *actor* does *not* underlie the endorsed ANT framework and is not pursued here. It raises a number of challenges related with a clear conflation between the material and the social, as Volkoff *et al.*, 2007 argued *against*, based on the critical realism approach deployed in the previous chapter (see section 9.3 on future research avenues). The focus here is retained on the socio-technical nature of *relations* between heterogeneous actors, including *technological* actors deeply influenced by (and also influencing) individual and collective human (i.e.,

⁵ This excerpt of Wagner *et al.* (2006) does not represent an overall deterministic position. In fact, these authors’ case study highlighted how most (potential and initial) effects were indeed provisional, contested and ultimately overturned.

social) actors during the course of *socio-technical relations*. Consequences of adopting this new concept are discussed next.

8.1.4.2 ‘Socio-technical relations’: structural technology (and rules) brought into episodic exercise

The suggested consideration of *socio-technical relations* between human and non-human actors

ANT’s consideration of both human and non-human actors is particularly relevant since the resultant explicit consideration of *socio-technical relations* between human and non-human actors is believed to enhance the understanding of the overall framework of circuits of power. Moreover, this insight led to the wider and important consideration of how the *structural features* of fixed techniques (as well as rules) *operate* in a *recurrently episodic* and *potentially unavoidable* way; as such, they may potentially make episodic, direct exercises of power by some agents unnecessary. This suggestion is discussed next.

As noted above, on one hand, Clegg’s original framework suggests that what takes place at an episodic level are *exclusively social* relations, i.e. relations among individuals and “some collective loci of decision-making and actions” (p. 215). Clegg endorsed ANT’s view of agencies as *more* than human beings (including, e.g., an organisational entity), *but he did not encompass technological devices*, such as machines or software. On the other hand, Clegg argued that “[t]echniques of production and discipline generate pathways (...) which can (...) become a new set of standing conditions redefining both social relations and agencies’ causal powers” (Clegg, p. 236). Since *both* organisational *and technological* devices are included within the

facilitative ‘techniques’ included in the circuit of system integration, it can be argued that *technological, non-human actors* are also involved in the episodic circuit. There seems to be room to improve the framework consistency.

But what distinguishes the episodic circuit and the two structural circuits of social and system integration? In Clegg’s own words, “episodic instances of agency power” are “the most apparent, the most easily accessible and the most visible circuit of power” (p. 211), in which agencies attempt to secure outcomes in *particular* instances of interactions. In this episodic circuit, control of resources at those instances is crucial; an agency may draw on the resources it controls (e.g., by attributing a reward) to exercise power over another agency in order to obtain something out of *that particular interaction*, through an *episodic exercise of power*. The two other circuits, of social integration and system integration, are structural and “constitute the field of force in which episodic agency conceptions of power are articulated” (pp. 211-212). As regards the circuit of system integration, described, it is constituted by the “material conditions in a social system – that is, prior distributions of resources and available technologies of discipline and production” (Ribeiro, 2003, p. 58). Here, controlled resources have been deployed *in advance* to introduce - and fix - those structures of fixity (“e.g., financial resources may be available [and deployed] to introduce disciplinary technologies”, Ribeiro, 2003, p. 75).

Some empirical insights highlight such a perspective of agencies drawing on structural standing conditions (including the technological innovations they had previously introduced) to obtain, e.g., information on other (third) parties, so that they could then use that information within their social relations with those (third) parties. An example was when a commercial unit obtained, through SAP, greater visibility over industrial

processes and therefore was able to be more demanding in its social relations with the plant. However, this setting is still much the one depicted in Clegg's framework and his notion of standing conditions providing agencies with resources to be drawn upon during social relations.

*The main suggestions are now proposed over the two following paragraphs, concerning: 1) the concept of socio-technical relations; and 2) how technological innovations may allow human agents **not** to get recurrently involved in episodic exercises of power, since the technological innovation may replace those human agents in a recurrent and permanent episodic way.*

Previously introduced technologies (e.g., the ERP) neither solely structurally reside in the circuit of system integration, nor merely remain 'as if' in the background to social relations established by human actors (individual or collective). Those previously introduced technologies – which, in an ANT approach, are considered actors – have a direct relation with the agencies (individual or collective) within the episodic circuit. Socio-technical relations are therefore at stake, in the *episodic* circuit of power – *rather* than merely *social* relations, as depicted in the original framework. These relations are 'socio-technical' in two ways. First, 'socio-technical' relations encompass the relations between individual or collective actors and non-human (so called 'technological') actors. And second, 'socio-technical' relations also encompass the conventionally labelled "social relations" between human (social) agencies, but which are ineluctably immersed within 'technologies' - and hence inevitably become 'socio-technical' relations.

The second suggestion, and *most importantly*, is that *agents who succeeded in previously introducing those technological innovations* (in the circuit of system integration) *may not need to be further involved in episodic exercises of power* with other agencies (in the episodic circuit). They may not need that, *because the technological innovations may take over that role, in a recurrent and permanent episodic way*.⁶

The *case study* provided abundant insights on how the outcomes at an episodic level were achieved as a result of particular socio-technical relations between agencies and the ERP system, in ‘one-to-one’ *socio-technical relations*, between one individual and the configured software – i.e., *beyond* those situations where technical actors are merely drawn upon by (human) agencies within social relations with other (human) agencies. A first example concerns SAP FI becoming established as the only software for most financial accounting activities, and configured with a single chart of accounts; a second example concerns the change of user profiles to prevent local actors to post transactions (after the migration of such activities to the SSC). In the two examples, a crucial aspect at the episodic level were the socio-technical relations between the local level individuals (and their organisational units) and the ERP.⁷ Indeed, the second example also highlights that the episodic (yet recurrent and permanent) influence upon the local individuals was indeed not only derived with his/her relation with the software, but was

⁶ The initial understanding of this issue by the author was developed during a discussion with João Ribeiro, who actually proposed the replacement of ‘social relations’ with ‘socio-technical relations’. The acknowledgment and gratefulness is here expressed, as well as a full assumption of responsibility for any potential error.

⁷ The reader is reminded of the previous stages of software selection and design, in which additional actors were involved. Therefore, the ‘one-to-one relation’ mentioned in the above paragraph is actually only a visible, episodic instantiation of a particular socio-technical relation but which actually reflects a far more plural relation.

also tightly related with the relations which that individual established with the SSC, the new ‘collective agency’ also recently introduced by central actors.⁸

It should be noted that the deployment of Volkoff *et al.*’s (2007) framework in section 7.1 (see page 489 and following) had already highlighted this insight - that technological innovations might replace and actually extend, in space and in time, the influence of human actors upon a wide network of other actors. Underneath the technological embeddedness of rules, constraining local actors’ agency in their interactions with the system and other actors, underlay *prior* human agency by central actors, at the previous design stage of SAP. After SAP FI ‘went live’, the interests and objectives of central actors then started being promoted by the mobilised non-human actor, in a continuous way during socio-technical interactions.

This important insight is, in fact, an extension of another which can be accommodated within the original framework and its reference to (only) ‘social relations’. *Organisational* innovations, such as the SSC, are collective actors, introduced in the network by other central actors (e.g., Mr. A). In the same section 7.1, on page 523, it was argued that central actors had *indirectly* secured a higher relational power, through the innovation (the SSC actor) they had introduced in IndCo’s circuit of system

⁸ Another similar rationale can be found in the original writings of Foucault about the Panopticon (in spite of some differences as regards the above discussion, particularly since Foucault’s text is centred only on surveillance and visibility). “Hence the major effect of the Panopticon: to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power. So to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action; that the perfection of power should tend to render its actual exercise unnecessary; that this architectural apparatus should be a machine for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the bearers. To achieve this, it is at once too much and too little that the prisoner should be constantly observed by an inspector: too little, for what matters is that he knows himself to be observed; too much, because he has no need in fact of being so. (...) It is an important mechanism, for it *automatizes and disindividualizes power*. Power has its principle *not so much in a person as in a certain concerted distribution of bodies, surfaces, lights, gazes*; in an arrangement whose *internal mechanisms produce the relation in which individuals are caught up*” (Foucault, 1975/1977, p. 201, emphases added).

integration. The above ‘replacement’ mechanism is also present here, now applied to the SSC *collective, social* actor (i.e., *not* a technological actor), whose relations with other (social) actors were already encompassed in the original element of ‘*social* relations’. Therefore, this particular configuration was not within the scope of the above suggestions, but it is also a *novel perspective* into the original framework.

The above rationale (how *episodic* repercussions of elements of the structural circuit of system integration may substitute *episodic* exercises of power by some agencies) can be further extended to another structural circuit: the circuit of *social* integration. When a senior manager was discussing the “*utmost importance*” of the acceptance by local actors of ideas and rules proposed by central actors, he added: “... *as it is evident. We are not there, and we are not going to have one person doing and another one ensuring that the first one actually did it*”. So, through the incorporation of the proposed rules within local actors’ ‘internal structures’ (see chapters 2 and 7), episodic exercises of power of central actors upon local actors would be less needed, being replaced by the appropriate dispositions emerging from the accepted rules. This example does not concern the suggested replacement of ‘social relations’ by ‘socio-technical relations’. However, it does show that the OPPs at *both* structural circuits may actually replace episodic exercises of power by agents - another *novel perspective* into the framework.

As a conclusion, the suggested adoption in the revised framework of the expression ‘*socio-technical* relations’, instead of ‘social relations’, has two advantages. First, it allows strengthening consistency with ANT’s ontological notion of actors (by including the relations involving *non-human* actors). Second, it contributes to a better understanding of how structural material conditions (techniques), in the circuit of system integration, have a direct impact at an episodic level through particular and

episodic socio-technical relations established with human and collective agencies. Importantly, although this impact is episodic, it is *recurrently* episodic and potentially unavoidable, as a consequence of the underlying structural nature of the material conditions. This recurrent and potentially unavoidable impact makes it potentially unnecessary for human agents to episodically engage in direct exercises of power – because the structural features may be, in a *recurrently* episodic and potentially unavoidable way, influencing (human) agencies towards the interests of the actors who introduced those material conditions. Finally, and in addition, a similar reasoning can be developed to argue that the fixing of *rules* (in the structural circuit of social integration) has a similar effect, potentially making episodic exercises of power by agents unnecessary.

8.1.5 RULES AND TECHNIQUES FIXING SOCIO-TECHNICAL RELATIONS AND EMPOWERING AGENCIES

The proposed framework clarifies the links between: 1) rules and techniques; 2) OPPs; and 3) social/socio-technical relations and agencies. In Clegg’s framework, it was not clear if the rules ‘fixed’ the OPPs, or the social relations, or both. Likewise, there might be doubts about what the techniques ‘empowered’⁹.

As suggested above, the indication of ‘fix/refix’ has been applied to the links from rules and techniques to OPPs. These links are situated in the realm of the structural circuits of social and system integration. The next step is to clarify what ‘fix’ and ‘empower’ may refer to, *at the episodic circuit of power*. It is now proposed that socio-technical

⁹ For simplicity, this discussion only mentions the possibility to “fix” or “empower”, and not the alternatives of “re-fix” or “disempower”. However, the reasoning is equally applicable to those alternatives.

relations may be *fixed*, while *agencies* may be *relationally empowered*. It is also proposed that *both rules and techniques* can do *both effects: fixing socio-technical relations* and *empowering agencies*. These proposals are now justified, in two separate analyses.

8.1.5.1 Linkages between rules and techniques fixing socio-technical relations (through OPPs);

The first proposal concerns what factors may fix socio-technical relations. Clegg proposed that social relations may be fixed through rules. The networks within which social relations are established are shifting and unstable. Therefore, shared rules, through the OPPs, may contribute to fix or stabilise such relations.

However, suggestions that *techniques* can fix social relations are scarce in Clegg. As already quoted above, Clegg argued that “[t]echniques (...) generate pathways (...) which can (...) become a new set of standing conditions redefining both social relations and agencies’ causal powers” (p. 236), i.e., basically an indirect effect of techniques over social relations. But the main effect of techniques that Clegg suggested does not concern fixing social relations, but rather empowering agencies (this is analysed below). And, as already noted, the original framework does not depict techniques fixing social relations, either.

A return to the literature may be helpful. When Foucault (1975/1977) discussed the life of the inmates in prisons, is not there a clear signal that the disciplinary techniques influence which kind of social relations can be established? “[t]hose separate cells [of the inmates], imply a lateral invisibility [to the other inmates]. (...) [I]f the inmates are convicts, there is no danger of a plot, an attempt at collective escape, the planning of

new crimes for the future, bad reciprocal influences. (...) The crowd, a compact mass, a locus of multiple exchanges, individualities merging together, a collective effect, is abolished and replaced by a collection of separated individualities” (Foucault, 1975/1977, p. 200-201). When Clegg mentioned Crozier’s (1964) study of the factory “in which the techniques of production were fully rationalized around the moving conveyor belt” (p. 236), can we avoid seeing potential impacts on the social relations which were possible (and impossible) in such a context? When an organisation restructures and creates new departments, at least *some* changes in social / socio-technical relations are expected: new relations may be created, existing ones may change or disappear. When processes embedded in a new information system require new interactions to occur if business processes are to be executed, social / socio-technical relations cannot remain totally unaffected.¹⁰

The case study revealed how technological and organisational innovations introduced in the circuit of system integration had a deep impact in social / socio-technical relations. The repercussions at stake go far beyond firing the local actors made redundant in the plants due to the SSC creation. The SSC introduced new actors in the network, both individual and collective, that inevitably establish new relations, both among new actors and among new and old actors alike, both among human and various technological actors. The SSC had a constitutive effect over the organisational fabric, including the social / socio-technical relations which contribute to define the actor-network, the complex ties between the actors. The SSC established new work procedures and workflows between parties which until then were not related, and removed other workflows, promoting the disconnection of other parties.

¹⁰ Naturally, the effects of these techniques on relations are mediated by existing rules and other techniques, constituted as OPPs.

Therefore, the new, proposed framework suggests that *socio-technical relations may also be fixed by techniques of production and discipline* (and not only by rules, as depicted in the original framework) – while recalling, like Clegg, that such fixation is conditioned by extant OPPs.

8.1.5.2 Linkages between rules and techniques empowering agencies (through OPPs and socio-technical relations).

The second proposal concerns *what* can produce empowerment and *what* can be empowered. The arrows in Clegg’s original framework suggested that only techniques can provide empowerment and disempowerment. However, *rules* can also empower and disempower. After discussing how techniques may empower agencies, Clegg drew on Child (1985) to note that “the probability of disempowerment of an agency depends greatly on the position that that agency has constructed in the existing network configuration of episodic power *as well as in the circuit of social integration*” (Clegg, 1989, p. 233, emphasis added). In addition, the previous chapters discussing the case study demonstrated how actors can try to achieve power by introducing and promoting the acceptance and enactment of rules of meaning and membership which support their interests.

Therefore, the proposed framework considers that *both techniques and rules can allow empowerment* – empowerment of *actors*, as suggested next.

As noted in sections 3.2 and 3.3, power can be seen as *relationally* attributed to actors (or agents, Clegg’s preferred term). Although “[i]t is not a thing nor is it something that people have in a proprietorial sense”, people “‘possess’ power only in so far as they are relationally constituted as doing so. To the extent that the relational conditions which

constitute power are reproduced through fixing their obligatory passage points, then possession may be fixed and ‘reified’ in form” (Clegg 1989, p. 207). Later on, he refers to “empowerment and disempowerment of *agencies* in a *relational* field” (p. 232, emphases added). In a similar message, “relations of power (...) may be (...) empowering (...) members, stakeholders and others”, Clegg *et al.*, 2006, p. 246). Therefore, *agents* are the entities which can be empowered *through* the *socio-technical relations* they establish within the network (rather than relations themselves being empowered, as it might be suggested by the original framework).

Therefore, it may be argued that Clegg’s original figure was inaccurate in two ways. First, it did not indicate that *rules* (only techniques) may create empowerment; however, rules *do* may create empowerment, like techniques. Second, it related empowerment with ‘social relations’; however, the entities being empowered are *agencies*, *through* social relations (or socio-technical, in the revised framework).

As such, in the revised framework, the arrows representing *empowerment* flow from *rules and techniques* to the *agents*, not only *going through the OPPs*, but also *through the socio-technical relations* in which those agents are involved. The *endpoint of this link are the agencies* (who *relationally* ‘possess’ power), and socio-technical relations are the context, the relational field in which those agencies are empowered.

8.1.6 ENDOGENOUS REPRODUCTION AND TRANSFORMATION OF BOTH RULES AND TECHNIQUES

The fifth area for improvement concerns endogenous *stability or change* of *both social* and *system integration* circuits, and includes two related proposed changes. The first

suggestion consists of including, in the graphical representation of the model, a link representing the pressures emerging from episodic level outcomes towards the reproduction or transformation of techniques - in addition to the reproduction or transformation of rules, which was the only suggested link in the original depiction. The second suggestion is adding the adjectives “extant / new” to both rules and techniques (while removing the term “innovation” from “innovation in techniques”).

It is believed that these suggestions – amply illustrated throughout the case study - do not add anything substantial to Clegg’s own understanding of these circuits. As regards the first proposal, regarding the addition of a link to the circuit of system integration, Clegg himself writes that endogenous changes “occur as a result of episodic power outcomes achieving either transformations in the rules that fix relations of meaning and membership *or enhancement in the process of innovation of techniques* of production and discipline” (Clegg, 1989, p. 224, emphasis added). In addition, the original framework did depict that agencies may control and contest extant OPPs – which encompass both rules and techniques.

The reason why the link to techniques was not included in the original figure is unclear to the author. It may be speculated to have been an attempt to simplify the (already complex) graphical representation of (also complex) phenomena (Clegg, 1989, p. 215). In fact, including another line might imply lines crossing each other (although the revised framework managed to avoid that). However, a potential attempt to (over)simplify may also mislead, and this may have been such a case.

As regards the addition of the “extant / new” qualifiers and the removal of “innovation” from the term “*innovation* in techniques”, the novelty concerns mostly in the inclusion

of *extant* techniques (in addition to ‘new’ ones). While the model was accommodative (by omission) of both extant and new rules, the mention of “*innovation* in techniques” restricted the scope to new techniques *only*. This restriction reflected Clegg’s suggestion that the circuit of system integration is the main source of innovation in the circuits¹¹. However, *extant* techniques should also be considered. For example, section 5.5, regarding the 1990’s, highlighted how characteristics of *extant* techniques (e.g., Excel spreadsheets, SOIC’s limited financial functionalities and the lack of strong central organisational structures) reinforced the OPP status of the rules underlying Excel spreadsheets adoption and of the Excel spreadsheets themselves. Furthermore, agencies may be involved in efforts to preserve *extant* techniques. Therefore, the *proposed* framework encompasses *both* new and *extant* techniques and expands the explanatory power of the model, without compromising its accuracy.

8.1.7 LINK BETWEEN EXOGENOUS ENVIRONMENTAL CONTINGENCIES AND THE EPISODIC CIRCUIT

Clegg’s original framework only depicted the effects of exogenous environmental contingencies over rules and techniques (circuits of social and system integration, respectively). These environmental contingencies explained *exogenous* change as they “interrupt and disturb the fixed fields of force of the circuit of either social or system integration” (Clegg, 1989, p. 224), along the endogenous consequences of outcomes of episodic relations (as analysed in the previous suggestion).

The new framework includes a link from exogenous environmental contingencies to the *episodic* circuit (in addition to the links to the circuit of social and system integration).

¹¹ As proposed in section 8.1.3, but not depicted in the original graphical framework, innovations in techniques can also have repercussions on rules.

The case study discussion did not provide a particular illustration of this relationship, probably because research efforts were not directed to it, for two reasons. First, research efforts were mainly focused on the structural circuits of power (rather than the episodic circuit), precisely due to their structural, long-term repercussions. Second, research efforts attempted to uncover endogenous explanations for events which, superficially, might be considered exogenous. Pursuing a holistic analysis of interconnected social settings (in line with the purpose and assumptions stated in section 4.1) may reveal that apparently idiosyncratic, exogenous events may actually have an endogenous source (Seo and Creed, 2002). Beyond this particular case study, it is reasonable to consider that exogenous contingencies can also affect the outcomes of episodic power relations, based on agents' causal powers. It can be speculated that such linkage was absent from the original framework merely for simplification purposes.

8.1.8 CONTRIBUTIONS OF THE PROPOSED MODEL: AN OVERVIEW

Individually, these proposals do not represent revolutionary changes to Clegg's original framework. Some suggestions add and clarify several linkages which in the original framework were either absent or unclear. Even though some of these arguable shortcomings may be considered minor, they risked creating misunderstandings of the framework. The clarification that rules and techniques fix socio-technical relations and empower agencies is believed to remove some ambiguity which arguably existed in the original figure.

Two suggestions were clearly more substantive. First, the consideration of the interdependence between rules and techniques, mediated through the extant OPPs, concerns a crucial path and direction of influence at the core of the structural circuits of

power. Second, the replacement of ‘social relations’ by ‘socio-technical relations’ enhances the consistency with the ANT grounding of the framework. In addition, this suggestion promoted the understanding of how techniques, as structural devices, may operate at an episodic level, including by replacing episodic exercises of power by agencies. Finally, this last insight was also extended to include not only techniques, but also rules. These two suggestions are believed to be the most fundamental developments to the original model, with significant repercussions on how power strategies can be conceived and carried out by organisational actors.

Clegg’s framework, now revised in this section, has proved useful to make sense of the case study. ANT, underlying the framework, contributed to a useful fine-grained, micro-level perspective of organisational life, combining insights on dynamism and fluidity with insights on stability and fixity. In particular, these theoretical lenses supported insights on the creation of mechanisms to structurally orient practices, within a complex and heterogeneous network of diversified elements. These insights are now deployed, in the next section, to construct a model loosely inspired in the OIE framework adopted at the start of this work, Burns and Scapens (2000), paying greater attention to the organisational micro-level and diversity and to a broad concept of rules, as important orientations for organisational action.

8.2 AN ANT-INSPIRED, OIE MODEL OF RULE-BASED ACTION

8.2.1 THE PROPOSED MODEL AT A GLANCE

This section builds on insights developed throughout the thesis to propose an ANT-inspired, OIE model of rule-based action. This model does not purport to be an all-

encompassing model, encapsulating *all* the insights developed throughout the work and eventually becoming some kind of ‘meta-model’ representative of a ‘meta-theory’. Its ambitions are more modest and are centred on the particular determinant of practices which was most focused on this thesis: rules.

The general structure of the model (Figure 8.2) is loosely inspired by Burns and Scapens (2000) (henceforth, Burns and Scapens), with an institutional realm and a realm of action. But the resemblances stop virtually there. The model defines the institutional realm as a *deep*, structural psychological structure and it depicts two additional structural realms: one of a *material* nature; and another of a *psychological* nature - at a *more superficial* level than the deeper institutional realm. Like in Burns and Scapens’ framework, the model includes *rules*; however, it adopts the conceptualisation proposed in this thesis; i.e., conceptualising rules as more than formal rules, external to the individual, and emphasising rules as actors’ internal structures. Unlike Burns and Scapens’ model, this model does *not* reflect the existence of *routines*, in order to allow for a greater focus on rules, in line with the argument and approach in the previous chapters. Also unlike Burns and Scapens’ model and as a reflection of the ANT perspective, this model also considers collective actors and non-human actors. Finally, this model explicitly considers the interpretive work on rules that human actors have to conduct in various instances. These distinctive options, inclusions and exclusions, are justified below.

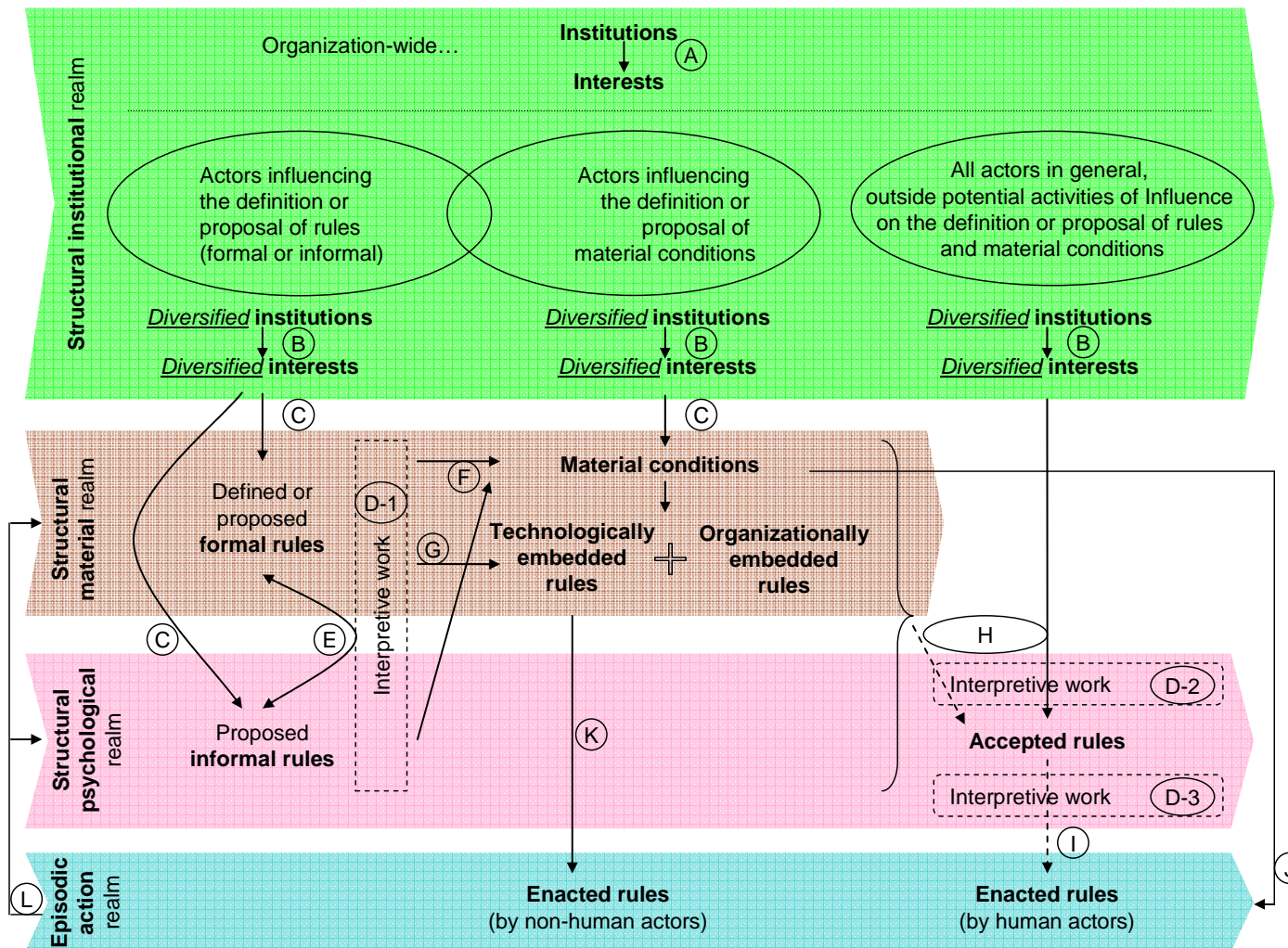


Figure 8.2: An ANT-inspired, OIE model of rules-based action
(Source: Developed by the author, loosely inspired in Burns and Scapens, 2000)

In brief, this model acknowledges both the existence of organisational-wide institutions (in line with Burns and Scapens' framework) and the existence of lower level entities (ranging from sub-units to individuals) with differing traits, all influencing interests. These entities may develop strategic efforts to achieve their interests by influencing actions, via mobilising organisational rules and resources. Resources are located in a structural, material realm. Rules, on the other hand, are also conceptualised as located in the structural realm, but they may have a *material* dimension (as formal rules) or a *psychological* dimension (informal rules and rules as actors' internal structures). Rules and resources may become intertwined across the two structural realms and rules may become technologically and organisationally embedded. The acceptance of rules by actors, making them orientating internal cognitive structures, results from those actors' institutions and interests and from whether and how the rules are technologically and organisationally embedded. Ultimately, actions unfold at the episodic action realm, as enactments of rules by human and non-human actors. Across the previous stages of rules embedding, acceptance and enactment, interpretive work is also involved.

Therefore, the proposed model is very different from the one in Burns and Scapens. It is actually a *new* model altogether, inheriting from the original model only its macro structure and most of its key fundamental concepts, but then developing them in significantly different ways.

8.2.2 THE PROPOSED MODEL, IN DETAIL

8.2.2.1 Institutional realm as deep psychological structure: institutions and interests in a micro-level view of organisations

From an organisation-wide view...

In line with Burns and Scapens, the upper part of the proposed framework depicts the institutional realm, including shared meanings and beliefs across the institutional unit – which, in the most typical scenario of OIE studies, is associated with the organisational level (see section 2.4.3). This institutional realm encompasses “the shared taken-for-granted assumptions”, the beliefs about “the way things are” (Burns and Scapens, p. 8), in a relatively “unquestioned and unquestionable way” (p. 11). In a Parsonian view, organisation-wide institutions are therefore an element contributing to organisational ‘truce’ (alongside other elements of the framework, such as routines) (Becker, 1998 and 2004; Nelson and Winter, 1982; Scapens, 1994).

Institutionalised, shared beliefs translate into shared *interests* (**arrow ‘A’**). This association between institutions and interests is solidly established in the literature¹². The argument that interests are shared among actors is actually an important supporter of the organisational ‘truce’. E.g., the widely researched paradox in institutional theory of embedded transformational agency has, as one of its fundamental premises, the assumption that participants’ perceptions and *interests* are shaped by their institutional context (Burns and Baldvinsdottir, 2005; Seo and Creed, 2002; see also chapter 2).

¹² The literature also associates institutions and *preferences*. However, interests establish a stronger linkage to theoretical approaches analysing intra-organisational power, the major focus of this work and of this model in particular.

... to a micro-level view of organisations

However, organisations are not homogeneous entities. In a call to avoid the typical association between institutions and the organisational level, Burns (2000a, p. 591) noted that “institutionalisation (...) cannot be assumed to be uniform throughout an organisation”. Various factors have been identified in the literature promoting intra-organisational diversity. ‘Incomplete institutionalisation’ (DiMaggio, 1988 and Powell, 1991) may emerge in “nested systems”, i.e., “interconnected, multilevel systems” (Holm, 1995, p. 398), which because they are only ‘loosely coupled’ (Powell, 1991) may exhibit diverging characteristics.

The notion of *totality* reminds that on-going activities of actors of an institutional unit imply keeping relations within and beyond that unit (Benson, 1977; Seo and Creed, 2002; from outside the institutional literature, Granovetter, 1973 and 1983). Relations beyond the actor’s institutional unit promotes exposure to alternative arrangements and promotes diversity. Moreover, there are additional sources of influences not related with interactions with humans (e.g., the media). In addition, Whittington (1992) drew on Giddens to identify *structural diversity* in four sources of influences (professional, political, ethnic and domestic) which *affect different actors in different ways*. Given the focus on organisational issues, previous chapters discussed divergences associated with *professional* influences, such as those associated with different types of organisational functions and which may even give rise to different organisational subcultures (Hofstede, 1998; see sections 6.2.3 and 6.3.3).

Taken together, the *totality* of the professional and non professional domains for individual and collective actors inevitably create exposure to a wide range of

institutional arrangements, at multiple levels and in “unregulated ways”, in a “nonrationalized sphere of organizational action” (Benson, 1977, p. 12). Whittington (1992), inspired by Giddens (1991), noted the “diversity of social milieux in which we (...) are involved, both through direct participation and through media exposure” (p. 696). “This diversity of contacts with other institutional arrangements promotes “a plurality of choices which confronts individuals of high modernity” (Giddens, 1991, p. 82) and creates the potential for institutional diversity among organisational actors. And, as noted above, diversity of institutions and other characteristics within an organisation promotes the emergence of intra-organisational *diversity of interests*.

In this framework, *interests* are conceived as the “representations of interest which agencies make” (Clegg, p. 212). Interests may therefore be the “result of a process of ‘translation’”, reflecting various influences *including* the one depicted in the framework: institutionalised shared beliefs. Therefore, the above conception of ‘representations of interests which agencies make’ is consistent with institutional theory, although it accommodates other sources of influence over those representations, in addition to prevalent institutions. At stake may be a more calculative and less Parsonian view of agencies, and the potential role of strategies of power conducted by other actors, as this case study demonstrated and Ribeiro (2003) had suggested (see subsection 2.3.1). Therefore, a caveat as regards the graphical representation of the framework must be expressed: were it not for the concern of not increasing the complexity of the framework, various arrows would be pointing to ‘interests’, in addition to the depicted one originated in ‘institutions’.

Three categories of actors

As argued during the case study analysis, there was substantial heterogeneity across IndCo. Without intending to promote reification, three broad abstract categories of actors are now identified. These categories are defined according to actors' *relational* and *contingent capacity, exercised* at particular points in time, to *attempt* to influence the elements of the two structural circuits of power proposed by Clegg: rules and material conditions. The categories refer to: 1) those actors influencing the definition or proposal of *rules* (formal or informal); 2) actors influencing the definition or proposal of *material conditions* (technological and organisational); and 3) *all* actors in general, *beyond* their eventual influence on the definition or proposal of rules and material conditions.

These abstract categories of actors are, above all, analytical categories. The graphic representation cannot do justice, of course, to the overlapping of such categories, in particular considering the various levels and types of rules and material conditions potentially involved. In practice, an ambiguous and exclusive classification of any particular actor within any of those categories is unlikely to exist. E.g., a particular actor may be in a relational position to attempt to influence the definition of particular rules, while, at the same time, being unable to do the same as regards other rules.

In addition, there is no necessary, strict association between any particular actor, a specific organisational area and related characteristics. Nevertheless, from the case study interpretation did emerge beliefs and concerns considered to characterise certain organisational domains in particular temporal contexts. E.g., among subsidiaries, local level issues were the main foci and priority, above central level priorities; in turn, this

translated into specific issues such as accounting criteria, reporting timings and adopted tools. An identical focus and priority did not characterise interviewees broadly associated with the organisational centre.

In a related way, these broad categories of actors should *not* be conceptualised as monolithic groups of *homogeneous* actors, or as corresponding to particular, defined, recognisable sub-groups. These categories of actors merely reflect those actors' particular attempts (or absence of attempts) to influence the structural realms. Each category is likely to be *heterogeneous* in its institutionalised beliefs and interests, while sharing some commonalities. In particular, the *third category* intends to encompass *all* actors, *whenever they are not attempting to influence rules and/or material conditions*. In fact, no actor actively attempts (let alone succeeds) to influence rules and material conditions *in all areas, at all times*. There are *at least some occasions and times* in which actors (*all* actors) are not involved in such active attempts. The third category is therefore likely to be the most widely diversified one.

Considering the above description of the categories of actors, four aspects underlie the graphical representation of the framework: *relational capacity*; *contingent capacity*; *exercised capacity*; *the time dimension*. First, the capacity of an actor is not absolute, as if intrinsically *his/hers*, but rather derives from the particular *relational position* that that actor occupies at a certain moment within the relevant actor-network. Second, there is no determinism or guarantee as regards the capacity of any actor to obtain success in any particular attempt. Third, although power is seen as a capacity, what is relevant in this particular framework is the actual *exercise of that capacity* to try to influence the structural circuits of power. Fourth, (and this complements the third aspect) this classification is *temporally specific* and also *dynamic and processual*. In a nutshell, the

relational, contingent capacity is exercised in particular, temporally specific instances of wider processes.

Finally, two clarifications are required. The first clarification concerns the adoption of ANT's ontological assumptions. In addition to individuals, both collective and non-human actors are depicted in the framework. *Collective* actors are the “collective loci of decision-making and actions” (Clegg, p. 215) mentioned in section 8.1. In turn, this requires conceptualising rules not only as the orientations accepted by *individual* human actors, at an atomised level, but also as the orientations accepted at a *collective* level. In addition, it also requires considering that there is ‘collective interpretive work’. The second clarification is related to *rules*. In line with section 2.3, *rules*, in this collective sense, still remain *different* from *institutions* (which are taken-for-granted and disassociated from historical origins, etc.) and from *routines* (which are crucially related with recurrence, repetition, and tend to be associated with some degree of automaticity).

Diversified actors, institutions and interests

Condensing the above argument about diversity of actors, institutions and interests, this framework brings such diversity to the forefront, as depicted by the ***three arrows ‘B’***. Institutional diversity across diverse actors contributed, concomitantly with additional factors, towards different interests across actors (these additional factors are not graphically expressed to simplify the framework). These diverse interests across the organisations and their actors promote the emergence of diversified strategies to attain those interests, acting on the other structural realms. This is analysed next.

8.2.2.2 Structural material and (surface) psychological realms: defining rules and material conditions

According to their diversified and potential opposing interests, actors attempt to *structurally* shape the conduits through which power circulates within organisations. This requires addressing the two other structural realms: the structural *material* realm (including *material conditions* and *formal rules*) and the structural, yet *superficial psychological* realm (more superficial than the deep level of the institutional realm, and which include rules of meaning and membership).¹³ These attempts are represented by the *three arrows 'C'*.¹⁴

The structural, material realm is conceived as comprising material conditions and formal rules. As defined during the discussion of Clegg's framework in Chapter 3, material conditions include machinery, information systems, software, organisational structures, etc. and were labelled under the wide concept of techniques of production and discipline. In addition, the criterion of materiality leads to the inclusion of *formal* rules in this realm, given their codified, 'objective' nature - regardless of being inscribed in a strictly material form (e.g., in a book) or in a virtual form (e.g., in an electronic database). Strategic moves by agencies to shape these two areas are represented by the *two arrows 'C'* which link the institutional realm and the material realm.

¹³ As already discussed, these structures are in line with Giddens' structures of signification, legitimation and domination, respectively. However, Giddens establishes a narrow relation between the structure of domination (based on resources) and power, while in Clegg's vision power flows, emerges and is constrained through the various circuits, and not only through material conditions.

¹⁴ Since each category of actors is heterogeneous and has various interests, and since such diversity promotes diverse, potentially opposite strategies to influence the structural realms, it would be plausible to draw *multiple* downward *arrows 'C'* coming out of each (heterogeneous) category of actors. Multiple arrows would correspond to multiple (and potentially opposed) proposed and defined rules and material conditions (Ribeiro, 2003). This plausible, and even more complete and accurate, representation was not adopted for simplification purposes.

Formal rules may be materially confined to their underlying original support in which they were legislated. In such case, actors are confronted with those formal rules, the eventual rewards and sanctions included in the legislation, and actors' internal "questions of value" also underlying those issues (Hodgson, 2006, p. 5). However, rules may also be translated and embedded in material devices, granting an additional influence to these rules; this is analysed further below, when *arrow 'G'* is discussed.

In addition to formal rules, actors may also promote the adoption of rules with an *informal* nature (*the third arrow 'C'*), not codified in a 'material' way (in the above *latu sensu*). It is acknowledged that informal rules may also emerge through an alternative process of "accretion, a passive process not under anyone's control, just happening"¹⁵. However, it would be naïf to reject the possibility that actors may also actively propose and promote informal rules. Like in the above analysis of the initial stage of formal rules, the influence of informal rules is largely shaped by the rewards and sanctions perceived to be associated with them – and whose enforcement mechanisms, as argued in subsection 2.3.1 based on Hodgson (2006), share some important commonalities.

A brief clarification regarding the relative positioning of the structural realms is required. Positioning the material realm next to the institutional realm and above the surface level psychological realm (in the upper area of the figure) is *not* intended to suggest greater closeness or similarity between the first two realms, when compared to relation between the institutional realm and the surface level psychological realm. Similarly (as regards the bottom area of the figure), it is also not intended to suggest that the surface level psychological realm is closer to the realm of action, when compared

¹⁵ Full quote already included in chapter 2, from Seal and Herbert (2005, p. 30), citing Czarniawska (1997, p. 192, emphasis removed).

with the material realm. Their relative position is merely intended to facilitate the flow of the proposed ‘causality’ account and it has no further theoretical foundations or implications.

8.2.2.3 Structural realms in interaction – part 1: rules, interpretive work, material conditions and the embedding of rules

As argued in section 2.3, all rules, formal and informal rules alike, require interpretation. ‘Interpretive work’ on rules indeed takes place at various moments and is responsible for rules indexicality – i.e., for rules meaning being dependent upon the interpreters and upon the context of interpretation. The framework signals several instances where interpretive work occurs, identified with *letter ‘D’* (*‘D-1’*, *‘D-2’* and *‘D-3’*) (other possible instances are not depicted in the framework)¹⁶.

Interpretive work associated with *letter ‘D-1’* actually refers to two instances. The first instance when interpretive work must be carried out is when formal rules affect informal rules, and vice-versa (*arrow ‘E’*, a bidirectional curve touching the ‘interpretive work’ figure). Formal rules provide orientations (signals) about acceptable and non-acceptable behaviours, and, through interpretive work, formal rules can extend their influence to areas not initially reflected in them (the concept of analogy is applicable here). Likewise, informal rules can also affect the production of formal rules, according to the particular interpretations that the ‘legislators’ may carry out of those informal rules; in this case, the relevant ‘interpretive act’ (Boland, 1996) is carried out

¹⁶ Interpretive work operates within human actors’ ‘internal structure’ and is obviously a psychological activity, rather than a material aspect. However, the instance of interpretive work identified as *‘D-1’* is graphically depicted across not only the psychological realm but also the material realm. Such representation merely intends to emphasise, without additional confusing graphic elements, that interpretive work mediates the various processes within the structural realm, *including* those within the *material* structural realm (*arrows ‘F’* and *‘G’*, explained below).

by the actors involved in the ‘legislative act’.¹⁷ It should also be noted that the processes through which formal rules influence informal rules are likely to be more gradual and emergent, while the inverse processes of informal rules influencing formal rules are inherently more episodic.

The second instance of interpretive work encompassed by *letter ‘D-I’* is when rules have an influence in ‘conditions of possibility’¹⁸ as regards the definition of material conditions (*arrow ‘F’*). Although this instance of interpretive work is also represented by *letter ‘D-I’* for the sake of graphical economy, it may be carried out by different actors. As mentioned, material conditions are techniques of production and discipline. For example, rules concerning investments can significantly influence the material conditions which can potentially be implemented. These rules can be codified and formal (e.g., as expressed in the annual budget, or in the procedure manual about the required steps of an investment process, regarding its conception, justification, authorisation and physical and financial execution). However, the rules can also be informal (e.g., a general informal rule considering that investments in enhanced financial software are not a priority).¹⁹

As discussed in the previous chapter, rules may be translated from their formal or informal ontology to become embedded in structural devices, gaining multiform materiality. As discussed in the previous chapter, rules may become *technologically*

¹⁷ Naturally, the expressions ‘legislators’ and ‘the legislative process’ are used here in a broad sense and certainly beyond the realm of laws (e.g., State laws) and include, e.g., a director defining stricter organisational rules for purchasing approval processes.

¹⁸ This is a narrow, but plausible, application of the concept of ‘conditions of possibility’ (see footnote 17 in page 404, in chapter 6).

¹⁹ Such process of defining material conditions (*arrow ‘F’*) itself entails the enactment of rules, in a recursive application (*arrow ‘L’*) of what is presented below as the ‘final’ stage of the framework, at the episodic realm of action. For the sake of presentation simplicity, the recursive nature of the process is temporarily ignored, and is resumed below, towards the end of the discussion of the framework.

(Volkoff *et al.*, 2007) and / or *organisationally* embedded. Each type of embeddedness is described separately, but for the sake of economy the same **arrow 'G'** is used to refer to both. In addition, it is likely that informal rules, in order to become embedded, must become somehow formally recognised beforehand (the upward direction of **arrow 'E'**). Hence, **arrow 'G'** departs solely from formal rules, rather than informal rules.

Through mobilisation of technology, rules become inscribed within *technological* devices (**arrow 'G'**), which have a material nature. As argued in section 8.1, technological devices (in IndCo's case, SAP FI) are non-human actors, but they are involved in socio-technical relations. The present discussion on inscribing rules within technological devices highlights the *constitutive* effects of such socio-technical relations on the non-human actor's ontology. In this case study, embedding rules implied mobilising SAP (and SAP FI in particular) by configuring various aspects of this technology. One example was embedding rules within the adopted parallel accounts solution, with the inherent relational ontology of the common and local charts of accounts²⁰. Rules also became embedded through wider aspects of SAP mobilisation, such as the definition of user profiles - and, inherently, the rules that defined users' capacities and scope of agency for interaction with the system (e.g., as regards the various charts of accounts), as well as with other users, through the system.

The case study also suggested that rules may achieve a particularly structural nature when they become embedded within integrated *organisational processes*, carried out by organisational structures. As mentioned, the **arrow 'G'** is also used to refer to this type of embeddedness. The type of embeddedness, and materiality, achieved by rules

²⁰ Local charts of accounts exist *in relation* to the common chart of the accounts, and vice-versa. In addition, each local chart of accounts is also related with the other local charts of accounts, *but only indirectly, via* the common chart of accounts.

through organisational embeddedness is different when compared to technological embeddedness. But both embedding mechanisms reinforce the defined or proposed rules, by increasing actors' need to compliance in as much as actors then take part in those wider, integrated organisational processes carried out by organisational structures and / or interact with those technological devices.

Finally, it should be recalled that both processes of embedding rules are mediated by 'interpretive work' of the actors involved (a third instance of interpretive work also represented by *letter 'D-I'*). In fact, actors must make sense of the (organisational) rules to be potentially embedded, as well as of the rules of the structures in which the (organisational) rules are to be embedded. This is particularly the case of ERP systems, such as the case study SAP system, which themselves comprise an inordinate amount of rules regulating their own 'conditions of possibility'. As Volkoff *et al.*, 2007 noted, "systems are configurable, but not infinitely malleable" (p. 833), and ERP configuration requires an articulation between the interpretation and enactment of ERP rules and the interpretation of the proposed organisational rules.

8.2.2.4 Structural realms in interaction – part 2: the emergence of rules as 'internal structures' of human actors

The analysis of the structural realm now turns to the holistic repercussions of the various structural elements, as encompassed by the vertical curly bracket. At stake is how those structural elements, mediated by additional 'interpretive work', have repercussions on the emergence of the rules accepted by human actors (both individual and collective) and which constitute a part of their 'internal structure' (see section 2.3).

Human actors are confronted with formal and informal rules which have entered the organisational realm through various processes of promulgation, definition, proposal or suggestion. Some (but certainly not all) of those rules have been embedded in technological and/or organisational structures and processes which impinge on actors' organisational life.

The framework depicts processes of a deliberate and largely guided nature, with particular underlying actors and interests. It can be argued that, as regards informal rules, there may also be processes resembling simple accretion, although it is doubtful whether they do not reflect interests of particular actors. This distinction about the degree of guidance (or manipulation) of these processes is, nevertheless, not absolutely crucial for the ensuing discussion, because the focus now resides in the generality of actors that have *not* been promoting these processes of definition and promotion of rules. These actors (the third category of actors depicted in the model) are the 'targets' for the rules being promoted, but they do not correspond to a clearly defined, exclusive and reified subset of actors, as discussed above in this section.

At this stage, these 'targeted' actors are confronted with a confluence between extant material conditions, defined or proposed rules (embedded or not, formal or informal) and their particular institutional context and interests (the 'wider-than-usual' circle around **letter 'H'** intends to represent such confluence among multiple factors). This convergence requires additional interpretive work, given rules indexicality (**letter 'D-2'**, the fourth instance of interpretive work), in a process which is also guided by *their particular (i.e., diverse) institutional context and interests*.²¹ The diversity of outcomes

²¹ As noted above, it would be plausible to draw multiple vertical arrows coming out of each category of actors.

resulting from the consideration of multiple institutional traits and interests across actors is compounded by the indexicality of rules interpretation related with *the interpreters themselves* (see chapter 2). Finally, the consideration of material conditions (encompassed, alongside rules, by the vertical curly bracket) accommodates a more calculative view of individuals, as suggested by Ribeiro (2003), complementing the more Parsonian view of individuals as internalising institutionally shared traits.

Therefore, the ultimate acceptance of rules by actors, making rules orienting structures, as a part of actors' 'internal structure', is depicted in the framework as resulting from the confluence of four factors. First, from *shared* institutional traits and interests, as emphasised by Scapens and Macintosh (1996). Second, from *diversified* institutional traits and interests, as a consequence of a more micro-level view of organisations. Third, from individuals' interpretive work (which Boland, 1996 depicted as indexical, not relying primarily on putatively shared meanings). And fourth, from a more calculative attitude of individuals, beyond a Parsonian perspective of values internalisation and accommodating more deliberate and calculative strategies, reflecting, e.g., the ways to advantageously explore structural material conditions (Ribeiro, 2003).

8.2.2.5 Episodic realm: enactment of rules by human and non-human actors

At an episodic realm, *human* actors draw on their accepted rules, as part of their internal structures, to orient their actions; rules may thus become enacted. However, the framework highlights that there is still an additional instance of interpretive work and indexicality, in particular due to the need to interpret the rule considering the actual context of potential enactment. Therefore, additional interpretive work on the rule must be carried out (*letter 'D-3'*) prior to its enactment.

In addition, prevalent material conditions (*letter 'J'*) also influence the ultimate enactment of the rule. The case study, across chapters 6 and 7, amply demonstrated how the material conditions introduced in the organisation (the new information system and the new organisational structures) profoundly influenced the actors' practices. Repercussions of material conditions emerged (as discussed in chapter 7) by making certain practices easier or more difficult (as techniques of production) or by creating lines of visibility (as techniques of discipline) (see also in chapter 7 the identification of various types of discipline).

Therefore, there is a confluence between the prevalent structural material conditions and the interpretive work carried out by the actors on the rules they accept as a part of their internal structure. It is that confluence that orients, in a contingent and non-deterministic way, the actual enactment of rules, in the episodic realm of action.

The case study also provided insights on the enactment by *non-human* actors of particular rules, previously embedded in technological devices (*arrow 'K'*). Various kinds of rules were identified which were enacted by the non-human actor SAP. E.g., embedded rules allowed SAP to automatically post intra-group invoices and to expedite product costing. More significantly, embedded rules impinged on human agency in areas such as transfer prices, the requirement of the existence of product costing for any given product to be produced, and credit control. This last example, regarding credit control, is particularly interesting since it entails an automatic enactment of a rule embedded in SAP (by halting the invoicing process), but retaining a room for human agency - albeit an oriented one. In fact, SAP enacts other embedded rules to constrain and channel the potential for agency to a particular individual, who then has to perform

the interpretive work concerning the rules at stake and decide on the course of action, at the episodic level.

8.2.2.6 Recursiveness revisited: enacted rules influencing the structural realms

Finally, enacted rules at the episodic level, in isolation or repeatedly, have the potential to influence the structural realms at all levels (*arrows 'L'*). This recursiveness is, of course, multi-layered and links together processes concerning various rules. Rules enacted in one area may, at one point in time, impinge on rules whose processes of definition, proposal, interpretation, embedding and acceptance are still underway. Importantly, enacted rules may be repeated across time and space, potentially giving rise to routines and even institutions, in processes of routinisation and upward causation which have been, and continue to be, extensively researched in the literature (Becker, 1998, 2004, 2005, 2008a; Burns, 2008; Burns and Scapens, 2000; Hodgson, 2006; Quinn, 2010). Indeed, institutionalised rules are accepted rules which have achieved an institutionalised status, by having 'moved upwards' to the deep psychological level of the institutional realm).

Therefore, there is an inherently dynamic nature in this process, which is hardly made justice in the graphical depiction of the framework – conveyed by *arrows 'L'* and the large horizontal arrows of each realm pointing towards the right, i.e., towards the future.

As a final note, it is suggested that this model may provide a preliminary starting point to address a paradox of institutional theory. As Seal and Herbert (2005) noted, one of the paradoxes of institutional theory concerns the contrast between “the notion of institutions that ‘suggests *accretion*, a passive process not under anyone’s control, just

happening’” and the notion that “the ‘*construction* of institutions implies and demands a proactive, performing, vision of human actors, busying themselves with plotting, performing, accounting for what they do...’” (Seal and Herbert, 2005, p. 30, citing Czarniawska, 1997, p. 192, original author’s emphasis). In the suggested model, actors are at the core, promoting and being constrained by strategies about proposed and defined rules and material conditions, in turn influencing accepted and enacted rules. Ultimately, accepted and enacted rules benefit the actors who have introduced them (see the last consequence depicted in figure 7.1, and which was not included in the model for simplification purposes). Furthermore, at a wider level, accepted and enacted rules may end up by becoming institutionalised, as suggested in the model.

The model does not explore whether and how accepted rules go beyond the surface level of ‘merely accepted’ rules and achieve that ‘taken-for-granted’ status characterising institutions. Therefore, the model does not solve the paradox. However, it does highlight how active human agency may influence antecedent steps to institutionalisation, by influencing accepted and enacted rules. And, by a greater understanding of agency, the model may contribute to lessen the neglect of agency traditionally charged against institutional theory, as noted in chapter 2.

8.2.3 CONTRIBUTIONS – AND LIMITATIONS - OF THE PROPOSED MODEL

8.2.3.1 Contributions – a brief overview

The proposed model of rule-based action incorporates several innovative concepts and linkages which are not only distinctive features as regards extant models, but may also make a contribution to OIE. Only a brief overview is provided here, since a more detailed analysis is developed in the next chapter.

The model explicitly considers diversity within organisations, as regards institutions and interests. It also endorses a wider concept of rules than the most usual one in OIE model (restricted to formal rules), emphasising rules as (human) actors' internal structures orientating their actions, and hence expanding the explicative power of OIE models (as argued in section 2.3).

The model also depicts three structural realms: an institutional realm (as a deep psychological structure); a material realm; and a surface psychological realm. This innovative conceptualisation highlights the importance of material conditions – techniques of production and discipline-, with multiple repercussions: embedding rules, promoting rules acceptance and enactment, and even enacting rules themselves. The distinction between two psychological structures as regards their depth is also useful, since, among other reasons, it highlights the importance of rules *even when* they do not achieve the greater depth of institutions.

The model also brings to OIE the concept of technological embeddedness (Volkoff *et al.*, 2007), applying it to *rules* and incorporating the ANT insight that non-human actors – and not only human actors – may also enact rules. In addition, it proposes the analogous concept of *organisational* embeddedness. Finally, the endorsement of an ANT ontology, conceptualising individual and collective actors, human and non-human actors, has important repercussions for OIE (e.g., non-human actors enacting rules, as mentioned above), whose further discussion is postponed to the next chapter.

8.2.3.2 Limitations

It is hoped that the components and relations included in this model make a useful contribution to the literature, but the model is certainly not exempt from limitations, even when compared with models also drawing from Burns and Scapens (e.g., Quinn, 2010). E.g., these two other models have a characteristic that in the now proposed model was sacrificed to avoid information and detail overkill: a *more obvious dynamic and temporal perspective*. As mentioned, such dynamic perspective is only discretely conveyed by the right-oriented horizontal arrows of each realm, pointing towards the future, in addition to the feedback *arrow 'L'*, representing the influence of enacted rules on the structural realms. But attempts at introducing both antecedent conditions (on the left side of the framework) and posterior changes (on the right side of the framework) have resulted in visually unappealing depictions of an inordinate amount of elements and arrows. The reader is invited to bear in mind that these processes are dynamic, continuous, contingent and precarious, in spite of the attempts to create fixity through the structural components. Therefore, the process depicted in the figure is continuously repeated, as agencies continuously attempt to secure and deploy their always contingent and precarious sources of power.

In addition, as already acknowledged, it is also accepted that the two other models also incorporate a component which is absent from the proposed model: *routines*. As clarified above in this section, this absence does not reflect a suggestion that routines may not exist or may be unimportant. Its absence reflects two choices. First, the choice for focusing on rules, in order to argue for a greater emphasis on this component, often neglected in favour of an overwhelming focus on routines. Indeed, the label of this model made explicit its focus on “rule-based action”. Second, the eventual addition of

routines would imply an increased complexity in an already complex figure, risking a visual (and cognitive) overkill.

It is nonetheless suggested how routines may be accommodated in this framework. As Becker (2004) highlighted, routines *necessarily* depend on previous, recurrent behaviour (see section 2.3). Therefore, it is suggested that an additional arrow to the right on the realm of action may convey the routinisation of repeated, recurrent actions by human actors (i.e., constituting *performative* routines).

In turn, these *performative* routines may feedback on all the above three levels. First, actions and performative routines may affect the surface level of structural psychological realm, by creating *ostensive* routines, which may further reinforce the orienting function of rules as internal structures. In turn, ostensive routines (and their underlying rules) may also affect the structural material realm, as they become embedded in technological devices or translated into formal rules (if such technological embeddedness or formal representation did not already exist). Finally, routines may affect the deep level of the structural psychological realm, if routines become institutionalised, disassociated from the historical circumstances in which they were originated (Burns and Scapens, 2000).

Both acknowledged exclusions (of a more obvious dynamic perspective and routines) are *areas for further development*, in particular to conceive of more integrative frameworks. The previous paragraph is a first approach on such a future development.

CHAPTER 9 – CONCLUSIONS

This concluding chapter is divided in three sections. The first section synthesises the main research findings by drawing on the adopted research questions: three questions related to the specific empirical setting; and two questions directed towards theoretical development in the field of institutional theory and power. The second section acknowledges some limitations of the study and a final section indicates avenues for future research.

9.1 RESEARCH FINDINGS

9.1.1 UNDERSTANDING THE EMPIRICAL SETTING – ‘THE ‘WHY’S AND ‘HOW’S’

This first subsection is structured around the three research questions more closely linked to the case study organisation ‘IndCo’ and addressed in chapters 5, 6 and 7. It synthesises the constructed understanding of the particular empirical setting, by addressing the ‘why and how’ questions that are crucial in interpretive and processual research. The option taken in this section was to include an empirical synthesis, in addition to the theoretical analysis, in order to facilitate a quick overview of the rather extensive empirical chapters (cf. Silverman, 2005).

9.1.1.1 Why did central actors have power limitations?

The first research question aimed to address a puzzle arising from the case study and...

1) Explain why formally powerful, central actors at the case study organisation were confronted with power limitations.

Addressing this question in Chapter 5 allowed the author to theoretically position and structure the remainder of the case analysis. Numerous insights suggested that, by the end of the 1990's, IndCo's 'central actors', including its Chairman and majority shareholder, were confronted with several power limitations. Those limitations concerned the lack of capacity of central actors to have consistent, detailed and timely information (including financial and accounting information) for decision-making and control and the resulting lack of capacity of those actors to effectively intervene at local levels. These structural limitations contrasted with their formal hierarchical positions which, through episodic exercises of power based on the control of resources, typically granted them the capacity to obtain intended outcomes in particular instances.

Understanding *why* that structural *capacity* of central actors was limited, what *caused* that limited power, was the puzzle. Power was therefore conceived as a *capacity* (in this case, a *limited capacity*), as a '*power to*'. And the *cause* of this (lack of) power / capacity had to be explained (see section 3.2 for these conceptions of power).

Clegg's concepts of circuits of social and system integration contributed to make sense of the puzzle. The *most visible explanation* could be attributed to the circuit of *system* integration, regarding extant techniques of discipline and production, both technological and organisational (see subsection 5.4.4). Various technological conditions supported local actors better than central actors, ranging from production technology to information systems of the production, financial accounting and management accounting areas. A local perspective also underlay organisational

structures and processes – which in turn were tightly intertwined with information systems, supporting the socio-technical relations of daily operations (section 8.1). Several examples regarding the disintegration, diversity, decentralisation, autonomy and local focus in the accounting area were provided.

This configuration of the circuit of system integration had disciplinary consequences and ‘productive’ consequences (in both ‘mainstream’ and ‘Foucauldian’ approaches, see subsection 3.3.6), and overall tended to favour the perspectives – and interests – of local actors better than the ones of central actors.

In addition, a less visible explanation of the puzzle also emerged from the in-depth discussions, concerning the circuit of *social* integration. Extant local rules of meaning and membership did not promote, and sometimes even hampered, the attainment of the interests of central actors, since they privileged a local level focus and / or they were diverse across locations, or differently interpreted and enacted (section 2.3). Some quotes, nearly all from chapter 5, may be useful: “we all had different concepts”; “criteria are different across controllers”; “people (...) did not know what was behind [the numbers]”; “many times, he [plant controller] calculates using his own rules”; “possibility for variations on how to interpret and introduce data in the system”; “There was a procedure manual for management control. But not all [plant controllers] did in the same way”. These quotations highlight the need of going beyond formal rules (e.g., the procedure manual), and research the rules as interpreted, accepted and enacted (or not) at a local, micro level, down to the individual level.

Considering these two circuits, central actors’ limitations could be attributed to the lack of “Obligatory Passage Points” guiding actors’ interpretations, dispositions and

behaviours towards the attainment of their interests, both as regards extant techniques and rules.

Exploring this first research question also provided relevant insights for introducing nuances in more extreme interpretations, both from an OIE-perspective and from a politically-focused perspective. OIE theorists tend to emphasise the role of institutions and routines and power theorists tend to emphasise organisations as arenas of struggles. The following quote from a CC manager reconciles various views, explaining central actors'...

“... perception that we didn’t have capacity to have consistent information for decision-making, because each one had a different method. Not that there was bad-will or whatever. Simply, each one did as he/she knew and was used to doing, giving total and absolute priority to the country’s reporting, and not the internal group reporting”.

On one hand, this interviewee rejected the existence of a clear conflict leading to “bad-will”. But he also depicted how accepted and enacted rules, as regards their content and their diversity, had consequences over the objectives and interests that each set of rules favoured, or neglected. This account highlighted the ubiquity of power, even when no visible conflict is at stake, and the persistent (albeit sometimes discreet) linkage between rules and power. In addition, while this interviewee recognised the importance of recurrent patterns of behaviour (an individual habit or collective routine, in a behavioural conception of these terms), these patterns cannot be disassociated from the underlying rules repeatedly enacted (section 2.3)

As argued in chapter 2, rules should also be considered, not the least because they also underlie *routines*. This thesis does not deny the importance of routines.

However, as previously discussed, OIE would have to benefit from looking into other components of the institutional framework in order to increase the explanatory capacity of OIE models.

Three major innovations in the circuit of system integration between the late 1990's and the early years of the new millennium were expected to substantially overcome these limitations. This issue was explored in the second research question, addressing both the motivations and the processes linked to the innovations.

9.1.1.2 Why and how did central actors introduce and mobilise innovations in the circuit of system integration?

The second research question, explored in Chapter 6, aimed to...

2) Explain why and how central actors introduced and mobilised technological and organisational innovations.

The major innovations at stake were the adoption of the financial accounting model of SAP (SAP FI), the relocation of the Corporate Centre and the creation of a Shared Services Centre. Addressing this question should start by recognising that orienting rules was not the exclusive motivation for introducing the innovations. E.g., the SAP FI innovation had an important technical motivation (avoiding the 'Year 2000 bug' and adopt a financial accounting solution for new sites in two countries) and the SSC had an important economic motivation (cost savings). However, as discussed, the technical motivation of SAP FI was deeply intertwined with non-technical issues (e.g., the selection of one single solution, rather than various ones; the design of the solution by a single team, based in Portugal, rather than in a decentralised way at a country

level). And the economic motivation of the SSC cannot be disassociated from the interests of key central actors (among which the main shareholder Mr. A), strongly affected by IndCo's financial crisis at the time. Therefore there is no claim of attributing exclusive explanatory capacity to the objective of orienting rules; but what is claimed is that this objective cannot be ignored in the processes of introduction and mobilisation of the innovations.

A simplistic answer to the 'why' component of the research question would merely highlight the objective of overcoming previously perceived limitations. However, the case study provided a more complex account of the underlying motivations, and which must be understood considering the 'how' component of the research question – i.e., how the innovations were introduced. The three innovations (SAP FI, CC and the SSC) will be analysed separately next.

The introduction and mobilisation of SAP FI

The introduction and mobilisation of SAP FI represented a very clear case of the development of preferences and objectives through action. In addition, ANT insights highlighted how such motivations emerged as a result of actions occurring within a network of *socio-technical* relations, rather than 'strictly social' (see sections 3.4 8.1). As the process of SAP FI mobilisation evolved and as SAP FI itself evolved, the mostly IT-focused initial objectives and concerns became enmeshed with objectives and concerns of actors from other areas (in particular, central actors of the financial area). As the case study argued, these objectives were only gradually developing. SAP FI clearly had various stages of mobilisation, characterised by the prevalence of particular types of concerns by particular actors. This overall depiction of a gradual, largely

unplanned and unpredicted, and certainly non-linear process, supported answering the question of ‘*why*... central actors... introduced... innovations... to orient rules’ in a more holistic (albeit less direct) way. It allows going beyond an answer to the ‘why’ question only based on ‘overcoming previously perceived limitations’.

SAP FI was a (non-human) actor introduced, through socio-technical relations, within a socio-technical network. The case study highlighted the early, but relatively incipient, objective that this new actor promoted uniform rules (across one, then three countries). Such an objective relied on the development of one single model, with the same processes and accounts structure, developed by a single team in Portugal (although the very existence of a global IT team in Portugal was, in itself, important to understand why only one model was developed). However, the initial configuration included independent, unarticulated charts of accounts, in different servers, across the countries, and local level actors were able to change local settings. Such an initial option resulted mainly from lower risk IT criteria, considering two factors: the *lack* of requirements by central actors in the financial area towards greater uniformity; and the requirements from local level actors, mostly concerned about *local* level financial accounting issues, rather than central level ones. As highlighted, local level actors, in particular plant directors, held a particularly strong relational power within IndCo’s network at the time.

This initial decentralised configuration allowed for an unplanned divergence of the models. Only when such divergence eventuated, and concomitantly with other technical developments (the adoption of logistic SAP modules) and organisational developments (the first steps towards the creation of a corporate centre in Portugal), did central actors from the finance area raise the uniformity and integration objectives. A

new stage of SAP mobilisation started. The shift to a parallel accounts solution, with a common chart of accounts articulated with country-level charts of accounts and based on a single server in Portugal, was a crucial step towards greater multi-country uniformity and integration and, through that, enhanced visibility and intervention capacity by central actors.

The concurrent influence of other (technical and organisational) factors mentioned in the previous paragraph is explored next and also when addressing the third research question, about the actual repercussions of the innovations. One additional aspect, also to be addressed in the third question, is also relevant to understand the ‘why’ of the second question. SAP FI was expected to influence rules because a number of proposed new rules would be technologically embedded in SAP FI, through its parametrisation and configuration - i.e., during the processes of SAP FI mobilisation by the various actors. As discussed in section 7.1, about technological embeddedness, in some cases SAP FI itself would enact the rules, automatically; in other cases, SAP FI was expected to promote the acceptance and enactment by human actors (individual and collective) of rules more attuned to the objectives of the central actors. As discussed below, this latter effect did not fully eventuate.

Finally, even a summarised account of the ‘why’s and ‘how’s’ must acknowledge two additional factors. The first factor is situated at a higher, group level analysis (i.e., above the organisational level): the non-human actor of the accounting *consolidation solution ‘Hyperion’*, adopted shortly before for the entire group. As discussed, the socio-technical relations around this actor made it an Obligatory Passage Point (OPP) in the process of introduction and mobilisation of SAP FI. The second factor traversed levels of analysis: the collective actor of *consultants*. The same

consultants were involved in the recent Hyperion project, at the group level and in particular at another business unit. Hence, these consultants were crucial OPPs within the socio-technical relations around the established OPP, Hyperion, and the emergent, potential future OPP, SAP FI. In addition, consultants were also crucial in micro-level processes of SAP mobilisation, at the level of local arenas of struggles where alternative visions for financial accounting systems were at stake, within IndCo. Consultants' general and group-specific SAP knowledge was crucial in determining the prevalence of the vision towards uniformity endorsed by Portuguese actors (even if still in an embryonic state), rather than of the alternative decentralised vision of Spanish actors, in line with the organisational characteristics of that country's subsidiary and SAP configuration. These two actors (Hyperion and consultants) were crucial OPPs, influencing 'conditions of possibility' about the rules to be embedded in SAP FI and hence about the rules proposed for interpretation, acceptance and enactment by the actors throughout IndCo.

This synthesis focused on the underlying motivations and major steps in the introduction and mobilisation of SAP FI by key central actors. As analysed, a key motivation was promoting the acceptance and enactment of rules promoting their interests and objectives. It was already noted that some initial expectations did not get fulfilled, and additional innovations were introduced in the circuit of system integration to counter these unexpected results (e.g., the shift to a single database and server solution). The synthesis is continued in two ways: next, by analysing the other innovations introduced in the circuit of system integration (the Corporate Centre and the Shared Services Centre); later, by addressing the third research question, through a more

detailed explanation of the multiple repercussions within and across the various circuits of power.

The relocation of the Corporate Centre (CC)

During the years of the CC (and top managers) location in Madrid, the chairman and majority shareholder Mr. A trusted key people to compensate his diminished knowledge and involvement in the business. In addition, information systems were not adequate to support central visibility. Therefore, in spite of the lack of ‘trust-in-systems’, Mr. A accepted incompleteness of information due to his longstanding ‘trust-in-(key)-persons’ (see section 6.1, Johansson and Baldvinsdottir, 2003; Moilanen, 2008; Seal and Herbert, 2009). However, the departure of those key people created a lack of *both* types of trust and promoted the objective of increasing business monitoring – an objective also promoted by the dramatic increase in IndCo’s size.

The relocation of the CC (and top management) to IndCo’s headquarters (Mr. A’s location) represented an innovation in the circuit of system integration, as a relocation of an organisational structure. The broader motivations mainly concerned central business control and finance, but rules were also present, alongside broader beliefs and principles. As discussed, prevalent local rules mostly addressed local level concerns, rather than central level ones; and there was an emergent belief that Spain was actually IndCo’s ‘centre’, rather than Portugal. This configuration of the circuit of social integration increased the potential misalignment between the interests of Portuguese central actors (in particular, Mr. A) and local actors’ enactment of local level rules. As the size and capacities of the CC increased, there was an increased attempt to promote the standardisation of rules across the sites. In addition, an increased business control

also increased the potential to identify occasions of lack of rule compliance and, therefore, was a factor promoting rule enactment.

The creation of the CC from scratch implied that, initially, resources were scarce. However, it allowed for the selection and training of individuals whose interests became more closely aligned with Portuguese central actors – indeed, individuals who became part of a new emergent network and which, in turn, became a new collective actor: the CC. In turn, as summarised below, there was significant interdependence in the repercussions and in the processes of development of SAP FI, the CC and the SSC, with initial negative dependencies and later positive mutual reinforcements.

An ANT-aware characterisation of the CC highlights the need to relationally locate the CC within the actor-network. In this case, the change in CC *physical location* (more than in the CC abstract role as a management control structure) was key in defining it as an *innovation* in the circuit of system integration. The CC proximity to Mr. A and the group headquarters contributed towards tighter links between these actors, changed its relational position within IndCo's wider network and influenced the effects of this reinforced actor-network.

The creation of the Shared Services Centre (SSC)

In addition to strictly economic motivations related to cost reductions, the creation of the SSC was motivated by the perception of Portuguese 'central' actors that SAP FI and CC did not fully succeed in attaining their interests. In particular, SAP FI and the relocated CC (the previous innovations in the circuit of system integration) did not fully succeed in promoting the enactment of new rules, in a uniform way,

compromising the timely production of comparable and integrated information. Even though the same formal rules applied in the countries with SAP FI, local actors interpreted and enacted them differently (or even failed to enact them). Persistent *local rules* (of meaning and membership), rooted in *local interests*, were crucial in the continuing lack of uniformity in accounting practices. Local ‘rules of practice’, as interpreted and enacted by actors in everyday actions, remained diverse and compromised the interests of central actors. These were important motivations related to the circuit of *social* integration. Moreover, the motivations for the SSC, and indeed its very essence, entailed jolting a notable feature of IndCo’s circuit of *system* integration: a highly decentralised and autonomous organisational structure based on relationally powerful local actors, at a plant level.

The SSC was a radical innovation expected to deeply alter IndCo’s actor-network and enacted *rules*. The changes in IndCo’s actor-network involved more than changing the relations established between an *a priori*, *given* set of actors. *Both* the *relations* (the usual focus of ANT) *and* the *actors themselves* within the network were to change, in a fundamental way. The change *withdrew* multiple local actors involved in accounting activities and *added* a new collective actor (the SSC, constituted by multiple, lower level actors). It eliminated, from IndCo’s network, multiple, heterogeneous, locally-focused actors, replacing them by a new collective ‘central’ actor. With this replacement of actors, it was hoped that *rules indexicality* related to *interpreters* could be overcome. The transactional activities of local actors within the accounting area would largely be restricted to merely scan and email the invoices to the SSC - where, in turn, the same human actor (as part of the SSC collective actor) would be posting the transactions of *all* subsidiaries (Clegg, 1975 and 1989; see sections 3.6

and 8.4; it should be noted, nonetheless, that rules indexicality still inevitably remains as regards the context of interpretation). In addition, the *remaining* actors in the local sites were also expected to accept and enact rules in line with central actors' interests. This latter aspect is analysed below.

Radical shifts in the relations within the network and in the centrality of the actors (eventually becoming OPPs) were expected. And, ultimately, radical shifts in actors' relational power were expected, reinforcing the central actors introducing the innovation – and ultimately Mr. A, the key actor behind this innovation. Indeed, like in the case of the CC, power considerations were crucial in selecting the physical location of the new actor: after ensuring that IndCo's (and Mr. A's) headquarters in Portugal satisfied economic and technical requirements, the proximity to central actors was a crucial criterion, in order to support their decision-making and control processes.

The introduction and development of the SSC, based on the transfer of most accounting transactional activities from the local sites to a central location, was crucially dependent on human and non-human actors. As regards human actors, a large scale recruitment and selection process led to hiring a large number of actors to the SSC. These newly-hired actors were sent to learn from the to-be-dispersed local actors, on-site, extant 'rules of practice'. At a first stage, the objective was to merely replicate, in the SSC, the rules previously enacted by local actors, without any ambition to change them. Potential (but certainly envisioned) changes to extant rules of practice would only be considered at a later stage. Before that, it was required that the new socio-technical relations between the human actors (the SSC actors, interpreting and implementing the rules in a mimetic way, and the remaining local actors) and non-human actors became minimally stabilised and under the control of the central actors.

Non-human actors were crucial in an initial stage in securing structural control by central actors. This was even more noteworthy because such structural control was not strongly supported by human actors - neither central nor local actors. The central actors in the SSC had superficial and mostly mimetic knowledge about the rules of practice (superficial knowledge of rules of meaning was therefore the main problem); and the local actors, overall, resisted (keeping adverse rules of membership was here the main problem). Non-human actors, especially SAP FI, provided a structural control, through the rules which were technologically embedded and whose enactment by SAP, within the established social-relations (of daily, SAP mediated accounting practices) allowed to lessen the problems with human actors (see chapters 7 and 8). The following account from a senior SSC manager is representative: initially some actors of the SSC *“didn’t know what a credit or a debit was. And they did it. ‘Select option 24, or whatever, and it [SAP] will do everything correctly.’”*

The above highlights how innovations introduced in the circuit of system integration were crucially reinforcing in rapidly granting to central actors structural control within the actor-network, even in the context of strong opposition and radical organisational changes. Similar repercussions eventuated in a longer-term analysis, by influencing rule acceptance and enactment across the network, contributing to central actors’ structural control of the network, and ultimately towards achieving their objectives. This leads to the theme of the third research question.

9.1.1.3 How did innovations in the circuit of system integration influence the acceptance and enactment of rules and increased the power of central actors?

The third research question aimed to...

3) Explain how technological and organisational innovations influenced rule acceptance and enactment and increased the power of central actors.

Addressing this research question was the major concern of Chapter 7 (which also developed additional issues, as discussed below). Figure 7.1, as an outline of the overall flow and main components of the account in Chapter 7, is also the basis for this summarised answer to the research question.

The ‘initial’ central actors identified as crucial for this process were, depending on the innovations, IndCo’s global IT department, IndCo’s chairman and majority shareholder Mr. A and IndCo’s top management. These ‘initial’ central actors introduced and mobilised three major innovations in the *circuit of system integration* (SAP FI, the CC and the SSC) which became key actors in IndCo’s actor-network, by gradually engendering Obligatory Passage Points (OPPs). It should be noted that while the emphasis was given to the three above innovations, other innovations were introduced, simultaneously and throughout the years. E.g., the Hyperion, IDAR and IXOS technological solutions operated within the processes of: accounting consolidation; investments; and document management for centralised financial accounting, respectively. And centralised organisational structures emerged in areas as: logistics; industrial benchmarking; Business Processes and Organisation. The *collective* nature of the origins and fixing of structural changes in IndCo’s circuits of power was a

salient trait throughout the case analysis, and will now be explored. Even though the three core innovations, related to the accounting and control area, were prominent in the depicted processes, the influence of additional innovations should not be ignored, making “management control in an ERP environment (...) a collective affair” (Dechow and Mouritsen, 2005, p. 691).

These ‘new’ actors were mutually dependent, both for their everyday operations and for their development and even emergence. Although none of the ‘new’ actors actually introduced any of the others, the previous presence and operation of certain actors in the network was crucial in promoting the introduction, mobilisation and development of other actors (a clear example is SAP FI supporting the SSC, and other examples were indicated).

The whole of plural, networked centralities had several repercussions (rather than ‘direct effects’, as discussed in the introduction of chapter 7) and was ‘productive’ in two senses. Chapter 7 highlighted that the repercussions eventuated mostly from the innovations *as a network*, as an *organised* set of elements, rather than from individual innovations, independent from the others. It was, above all, an *organisational* achievement, and *organisation* was key (Clegg, 1989; Clegg *et al.*, 2006). And this *organised network* was ‘productive’ in both senses discussed in Chapter 7, reflecting its nature of techniques of discipline and production (see subsection 3.5.5 for the broad sense of ‘techniques’). The *network* was ‘productive’ in a Foucauldian, metaphorical sense, by ‘producing’ a subjected subject, i.e., ‘producing’ an actor whose behaviour promoted the interests of the actors introducing the innovations. And it was ‘productive’ in a mainstream sense (also present in Foucault’s conceptualisation), by, e.g., producing

better quality, faster, more detailed information; cost savings; physical manufacturing of goods; and so on.

The introduction of these actors in IndCo's network was accompanied by the attempt to change enacted rules across the organisation. In some cases, the change consisted of changing actors' interpretation, acceptance and enactment of existing rules. In other cases, the change consisted of introducing new rules – which, in turn, would also have to be interpreted, accepted and enacted by actors, therefore requiring additional efforts to influence these later stages.

In both situations of changes in rules, a key mechanism was *embedding the (formal) rules* within the organisational fabric, embedding the (formal) rules in *technology* and in the *organisation*. Embedding rules in technology and in IndCo's everyday organisational functioning, across various organisational structures, was a crucial mechanism to structurally influence rules acceptance by actors. This embedding of rules went beyond the codified substance of rules and beyond the reliance on human actors' internalisation of rules due to moral allegiance and commitment (in a Parsonian perspective) or straight fear of sanctions (in a simple conception of power). In addition, it should be noted that this embedding of rules also reinforced the influence of the innovations, reinforcing their relational position and status as OPPs (hence the bidirectional arrow between the innovations' OPP status and rules embedding).

The emerging reconstituted and reconfigured network brought about a number of repercussions, in various ways, and in which the various innovations had variable pertinence and centrality. The 'new' network entailed a redefinition of the *scope of agency* among (extant and new) actors, often based on the compulsivity derived from

technologically embedded rules (e.g., by restricting local actors' potential agency). Several mechanisms also attempted to orient prevalent *interpretations*. Moreover, although the 'new' network was fundamentally intended to benefit central actors, it also addressed *issues pertinent to local actors*. Reflecting the mainstream sense of 'productive' techniques, some innovations contributed for local actors' '*productive*' *activities* (vital within their membership work - Munro, 1999) and created *direct benefits* for local actors. Other innovations had particular features which contributed towards making the *objectives* of central and local actors *compatible*. Some innovations introduced *incentives for compliance*, by making rule enactment favour local actors' activities; and, in the opposite direction, some innovations introduced *disincentives for non-compliance*, since non-compliance would end up by complicating local actors' activities. Importantly, there was an emergent perception that the failure to enact proposed rules would *inevitably be detected*, followed by the likely restore – when possible - of the outcome implicit in the rule and, eventually, implying some kind of sanction; rule acceptance and enactment then emerged as the best alternative, on a calculative (rather than Parsonian) perspective. Another factor (not depicted in the figure) was the *scarcity of some resources* at a local level - in particular, time. This scarcity promoted that local actors prioritised activities and enacting rules which were imperative for their membership work within the reinforced socio-technical relations with central actors, abandoning other more locally-oriented activities and rules.

Two final repercussions were identified, at a more abstract level. An emergent perception that control by central actors was not only inevitable, but also '*natural*', played a foundational role, promoting appropriate dispositions towards rule acceptance and enactment. Finally, the diffused, capillary embedding of rules within organisational,

everyday processes promoted that control became a part of *organisational normalcy*. And, as chapter 7 concluded, normalcy is where power becomes most effective.

These various repercussions impinged on local actors' *dispositions* towards accepting the proposed rules. *Accepted rules became Obligatory Passage Points* within the *circuit of social integration*. As rules became accepted and a part of the actors' cognitive structures, they promoted oriented, *self-disciplined behaviour*, based on the *enactment* of those rules. Finally, it should be noted that *interpretive work* is again involved at the stage of enactment of rules; therefore the repercussions of the innovations network on actors' interpretation (at this stage, on actors' interpretation of *the situation being interpreted*) are again a key issue.

In addition, some *rules* were *enacted by non-human actors* – in particular, SAP. The enactment of these rules by non-human actors occurred in a parallel and complementary way with the enactment of rules by human actors – in fact, it often resulted from the redefinition of the scope of agency alluded above, in particular as regards the withdrawal of agency from human actors and its attribution to non-human actors. This redistribution was largely supported by the embedding of rules in technology, which in turn was framed by the embedding of rules within integrated organisational processes across multiple organisational structures.

As a final remark, it should be recalled that these processes were not introduced and did not develop in a vacuum – on the contrary. Previous, extant rules and techniques, established as Obligatory Passage Points when these various processes started, were constant presences. But extant OPPs were considered and addressed differently within these processes: some OPPs were irrelevant; other OPPs were taken

into account and preserved; other OPPs were supports of the processes; other OPPs were taken into account but the socio-technical relations in which they participated were redefined; and, finally, other OPPs were considered precisely as the OPPs whose obligatory status and even existence was being contested (e.g., local rules privileging local concerns over central concerns, extant techniques addressing exclusively local concerns). These processes entailed redefining *some* extant socio-technical relations, and the role and centrality of extant OPPs were differently addressed within these processes – ranging from being reinforced to being challenged. Redefining (plural) *centralities* within the actor-network relations was a fundamental objective of these processes.

Overall, the complex and intertwined processes depicted above influenced rules acceptance and enactment and ultimately favoured the attainment of the interests of central actors – both those that initially introduced the innovations and those that were created during this process and became a part of the actor-network. At the realm of specific behaviours within specific socio-technical relations, within the *episodic circuit*, the interests of central actors became more likely to be met. The third research question has thus been answered.

As depicted in figure 7.1, the innovations also led to repercussions not directly affecting the enactment of rules by the ‘targeted’ actors. The innovations were also material conditions facilitating the ‘production’ of organisation-wide integrated, detailed, timely and comparable information, enhancing central actors’ visibility across the organisation. This enhanced visibility (by the ‘initial’ central actors and by the ‘new’ central actors, in particular the CC and the SSC) facilitated an external control of rule enactment, identifying and correcting situations of lack of rule compliance.

Therefore, it facilitated an *external discipline* regarding the outcomes, even in situations where *self-disciplined behaviour* had not been previously achieved. In addition, this enhanced visibility also facilitated central actors' decision-making. As a whole, these repercussions *complemented* the above described process of *ex-ante* promoting rules enactment (in fact, as regards *ex-post* control, they operated in a *supplementary* way, when *ex-ante* rule enactment was not achieved as desired). And, overall, all these repercussions facilitated central actors' activities, reinforced their relational position within the socio-technical relations and contributed towards the attainment of their interests.

9.1.2 THEORETICAL CONTRIBUTIONS

The second subsection addresses wider theoretical issues, based on developments to the theoretical frameworks deployed in this study, as proposed in chapter 8 by drawing on all previous chapters. The above answers to the three empirical-related research questions already contain theoretical contributions, in particular the third question about how the innovations influenced rules, as they depict in conceptual terms the organisational change processes in the case study organisation; however, in spite of such theorisation, they still remain rather empiric-specific. The ensuing contributions, although also guided by the empirical study, are more detached from the case details and therefore have a wider (theoretical) applicability and generalisability (Scapens, 1990)

Following the structure of chapter 8, this conclusion starts by addressing the second research question, proposing development to Clegg's (1989) framework. Then, it returns to the first research question, to propose an OIE model of rule-based action.

This model, integrating insights from the adoption of a micro-level OIE perspective, from ANT and from the previous deployment and development of Clegg's model.

9.1.2.1 A revised model of 'Circuits of Power'

The second research question aimed at developing Clegg's framework of circuits of power. The proposed contributions range from changes or additions to the graphical depiction of the framework, to conceptual modifications and new linkages. Six contributions are discussed in section 8.1, but only four of them are briefly summarised next, given their wider theoretical relevance.

The first contribution clarifies that the Obligatory Passage Points (OPPs) comprise elements from *both* structural circuits of power, i.e., from the circuits of social *and* system integration. In addition, it clarifies that not only rules but also techniques constitute (i.e., 'fix/re-fix') OPPs.

The second contribution highlights the specific potential of techniques (in the circuit of system integration) to influence rules (social integration); in addition, it highlights that such potential of any given technique is contingent on all extant OPPs. As regards the first aspect, the original framework did not depict such potential of techniques, eventually as a consequence of Clegg's (correct) stance against technological determinism. In the proposed model, this suggestion is graphically depicted by a bidirectional arrow between rules and techniques, conveying a notion of mutual influence. In addition, the suggested bidirectional arrow between rules and techniques is *curved*, passing through extant OPPs. This change suggests going beyond simple, direct conceptualisations such as "rule A affects the adoption of technique B",

and to consider the whole set of rules and techniques (previously or concomitantly) fixed as OPPs.

The third contribution reflects ANT's conception of 'socio-technical' relations and, importantly, it suggests that the structural features of fixed techniques (as well as rules) may potentially dispense with episodic, direct exercises of power by agents that introduced those techniques and rules. This contribution had its starting point in ANT's remark that 'social relations' are, indeed, '*socio-technical*' relations, within 'socio-technical' networks. As such, in the revised model, (episodic) '*socio-technical* relations' replace the original reference to 'social relations'. This apparently minor terminological change contributes to a further clarification of how the overall framework of circuits works. Expanding the scope of analysis from only techniques to *both* techniques and rules, it was noted that the structural features of fixed techniques and rules operate in an episodic way, but in a *recurrently* and *potentially unavoidable* episodic way. Therefore, agents who succeeded in previously fixing rules and techniques *may not need to be further involved in episodic exercises of power* with other agencies (in the episodic circuit), *because the fixed rules and techniques may take over that role*, in a recurrent and unavoidable episodic way.

The fourth contribution clarifies the links between: 1) rules and techniques; 2) OPPs; and 3) social/socio-technical relations and agencies. This clarification was needed because doubts were raised about these links in Clegg's framework, in particular about what 'fix/refix' and 'empower' referred to. The first contribution already clarified that both rules and techniques 'fixed/refixed' OPPs, in the two structural circuits. This additional contribution now addresses the linkages to the *episodic circuit of power*. It clarifies that 'fixing' refers to socio-technical relations and that 'empowering' refers to

agencies. As such, *socio-technical relations may be fixed* by the rules and techniques which became fixed as OPPs. In turn, *agencies may be relationally empowered* by those rules and techniques fixed as OPPs. These linkages could not be derived from Clegg's depiction of the framework.

9.1.2.2 An OIE model of rule-based action: an overview

The second theoretical contribution emerges from the first research question, which aimed at developing Burns and Scapens' (2000) framework, focusing on the complex processes of introduction, interpretation, acceptance and enactment of rules, and also given particular salience to material conditions. The framework proposed in section 8.2 is loosely inspired in Burns and Scapens (2000) and builds on insights developed throughout the thesis to propose an ANT-inspired, OIE model of rule-based action. This conclusion starts by summarising the main theoretical conceptions of the proposed framework. Subsequently, the rest of this subsection highlights the most salient and innovative features as regards more traditional OIE models.

The model general structure extends from the structural, higher level and more abstract institutional realm (here defined as a *deep* psychological structure) to the realm of action (in line with Burns and Scapens, 2000). In between these extremes, the model depicts two additional structural realms, one with a material nature, and another of a *psychological* nature - at a *more superficial level* than the deeper institutional level. Resources, as material conditions, are located within the structural material realm. Rules are located in both structural realms introduced in this model. Formal rules (the prevalent conception of 'rules' in Burns and Scapens) are located in the structural, material realm. In turn, the structural, superficial psychological realm encompasses both

proposed informal rules and the rules that end up by being accepted and hence become part of human actors' cognitive structures.

Like Burns and Scapens (2000), the model accepts the existence of an institutional realm of shared taken-for-granted assumptions at an *organisational* level. However, the model emphasises a more micro level perspective, i.e., below the organisational level. Considering the analysed topics (rules and material conditions), the model includes three abstract, analytical categories of actors when promoting new rules, promoting new material conditions, and not promoting either. Shared and diverse institutional traits are considered to coexist across the organisation and even within each of the categories.

Importantly, actors' *interests* are influenced by prevalent institutions of the various institutional fields to which the actors are exposed. Therefore, diverse and even opposing interests are considered an intrinsic characteristic of organisational life, coexisting with shared, common interests.

In order to attain their interests, human actors (individual or collective) may define or propose rules (formal and informal) and resources (material conditions). Rules and resources may become intertwined across the two structural realms. Formal and informal rules can mutually influence each other and they can influence the 'conditions of possibility' as regards the definition of material conditions. Moreover, and importantly, rules may become technologically and organisationally embedded. Rules can be embedded in technological actors during their mobilisation, as they are configured and/or parameterised in a particular organisation (Volkoff *et al.*, 2007). And

rules can also be embedded within integrated organisational processes, carried out by organisational structures.

In a confluence between extant material conditions, defined or proposed rules (embedded or not, formal and informal) and actors' particular institutional context and interests, some rules may become accepted and become a part of their 'internal structure', orienting their behaviours. This multiplicity of influences accommodates both Parsonian and calculative views of actors, expanding beyond the typical OIE focus on the Parsonian mechanism of internalising institutionally shared traits.

Finally, at an episodic realm, human (individual and collective) actors enact accepted rules (as part of their internal structures) and draw on available material conditions, in order to conduct their actions. In turn, non-human actors enact the rules which were previously technologically embedded in them.

It should be noted that diversity within the framework is further increased by an additional factor not mentioned in the above account, for simplification and summarising purposes. This additional potential source of diversity - and unpredictability - is actors' 'interpretive work' involving rules (see section 2.3). 'Interpretive work' on rules is responsible for rules indexicality – i.e., for rules being contingent on the context of the interpreters and contingent on the context of interpretation. Such interpretive work takes place at various steps depicted in the framework: in the interdependencies between formal and informal rules; in rules influence in 'conditions of possibility' concerning material conditions; in processes of embedding rules; in the acceptance of rules; and, finally, in the enactment of rules.

The model concludes with the introduction of a recursive element, highlighting that enacted rules may influence the entire process at all realms. Indeed, enacted rules may be repeated across time and space, given rise to routines and even institutions, in processes of routinisation and upward causation. This recursiveness represents a dynamic nature of the framework, in addition to the temporal dynamism conveyed by the horizontal arrows pointing towards the right, i.e., towards the future.

9.1.2.3 An OIE model of rule-based action: distinctive features and contributions

The proposed model of rule-based action incorporates several innovative concepts and linkages which are not only distinctive features as regards extant models, but may also make a contribution to OIE. These innovations are now briefly outlined in separate parts.

Exploring institutional and organisational diversity

First, the model explicitly represents, emphasises and explores institutional and organisational diversity. Institutional diversity makes some way to address the tensions emerging in the debate between Boland (1996) and Scapens and Macintosh (1996), in particular as regards Boland's charges against the other authors' alleged 'monolithic' approach. It is recognised that even institutional diversity is still at odds with Boland's core objections against the concept of 'shared' traits and would still be regarded with scepticism. Nevertheless, some of Boland's core objections are incorporated in the framework when interpretive work is considered (see below the fifth contribution).

A renewed emphasis on a revised conception of rules

Second, the model focuses and explores processes involving rules, adopting a different conception from the prevalent one in the literature. Rather than conceiving rules merely as formal, codified rules, a wider conception is adopted, including also rules as (human) actors' internal cognitive structures, influencing their behaviour. This expands the explicative power of the model to situations which previous models did not address because they were restricted to the concepts of routines and *formal* rules.

A brief summary of the arguments developed in chapter 2 is appropriate. First, sections 2.2 and 2.3 noted that rules underlie all conceptions of routines - *including* those conceptions depicting routines as orienting behaviour (*ostensive* routines, in Feldman and Pentland, 2003; Pentland and Feldman, 2005 and 2008; Quinn, 2010; Van der Steen, 2007; Volkoff *et al.*, 2007); and depicting routines as dispositions (in Burns, 2008; Hodgson, 2003; Johansson and Siverbo, 2009). More significantly, the importance of rules is particularly clear *when there are no routines* regarding a *particular* issue (subsection 2.3.3). A first reason why routines may not exist is related to a *key* requirement of routines: *recurrence* of behaviours (Becker, 2004). Recurrence of behaviours is required *both* to create a routine and to maintain it. Failing that (e.g., that particular issue had never occurred, so actions concerning it had never been performed), there are no routines. A second reason why routines may not exist is related to recurrent actions *not* developing into routines – a possibility also acknowledged in OIE literature (Burns, 2000; Yazdifar *et al.*, 2008). It is therefore very plausible that routines may not exist in a certain organisational context as regards a particular issue.

In the absence of routines and their orienting role for behaviour, and considering the (reasonable) assumption that organisational actors' behaviour is not random, then behaviour is oriented by the *rules* accepted by those actors – whatever the form and origin of those rules. This situation makes it clear that conceptualising rules merely as *formal* rules limits the explanatory power of extant models – indeed, there is consensus in the literature that there may be a wide gap between formal rules and actual behaviour. In addition, *institutions* also provide an unsatisfactory account. As recalled in subsection 2.3.3, OIE theorists have recognised the limits of institutions for providing direct orientations for action, relying on rules and routines for that purpose (Burns and Scapens, 2000).

Therefore, actors' accepted rules emerge as crucial explanatory factors. Relevant accepted rules may not necessarily have the status of an institution, and they may not necessarily underlie a routine - although accepted rules may potentially be present in those forms. Indeed, the flexibility of the concept of rule grants it a significant explanatory power which may be crucial to address gaps in extant OIE models. Hence, the proposal of a renewed emphasis on a revised concept of rules, as stressed both in the literature review and in the proposed model.

Three structural realms

Third, the model depicts three structural realms: an institutional realm (as a deep psychological structure); a material realm; and a surface psychological realm. The literature has acknowledged that rules, as cognitive psychological structures orienting actors, may have a variable depth in the way they are sedimented and taken-for-granted – indeed, that is key for the classification of a given rule as an *institutionalised* rule. The

proposed representation separates a deeper psychological realm (comprising institutions) and a more superficial psychological realm (comprising rules without the requirement of having achieved such institutionalised status).

The distinction between the two psychological structures as regards their depth is not new in the literature. However, this graphical representation highlights the importance of rules *even when* they do not achieve the greater depth of institutions. Furthermore, these potentially more superficial rules are likely to be the crucial link to orient everyday, detailed action. And, finally, these more superficial rules may evolve to a deeper level if, and when, they become institutionalised.

In addition, the inclusion of a structural material realm is clearly distinctive as regards other models, in particular as regards the component of material conditions (techniques of discipline and production). Techniques of production and discipline (as conceptualised in the revised model of ‘Circuits of power’) have diversified and important repercussions. They make the embedding of rules possible (see next contribution); they promote rule acceptance and rule enactment; and they enable the enactment of rules by non-human actors (see the final contribution). These are valid reasons to give material conditions an important place within OIE models.

Technological and organisational embeddedness

Fourth, this model incorporates Volkoff *et al.*’s (2007) concept of technological embeddedness, applying it to *rules*. Rules are incorporated in technology and may then be automatically enacted by technological, non-human actors (see the final contribution). This is a first contribution to OIE models.

In addition, this model draws on the ‘circuits of power’ framework to identify organisational structures as particular techniques and material conditions. This theoretical insight and the empirical insights allowed developing the related concept of rules becoming *organisationally* embedded, also depicted in the now proposed model. The organisational embeddedness of rules refers to when rules become embedded within integrated organisational processes, carried out by organisational structures. This extension is not only an important complement to Volkoff *et al.*’s work, but also to OIE models, while reinforcing the consistency between the proposed models.

Attention on actors’ interpretive work

Fifth, a particular attention was given to actors’ interpretive work concerning rules. Rules are related to their usage and they are indexical – i.e., contingent to the context of interpreters and the situation being interpreted. This permanent contextual contingency of the repercussions of rules promotes a greater diversity and unpredictability within organisations, as mentioned in the first contribution, and makes OIE models more realistic and (should criticisms such as Boland’s, 1996 be accepted) less ‘monolithic’.

While Giddens’ concept of rules of interpretation already highlighted the importance of interpretation, the specific indication of various instances where interpretive work is relevant, as well as a general greater salience to it, is a contribution to a more systematic consideration of this factor.

Non-human actors and collective agency

Sixth, and finally, the proposed model incorporates ANT's stress on collective human agency and *non-human* actors, in addition to individual human agency. These two ontological considerations are an important contribution to OIE models.

Although OIE theorists do analyse collective effects and behaviours (the Burns and Scapens' model is but one example), they typically refrain from granting agency to *collective* entities, or even explicitly object to that. Such objection is patent in Hodgson's (2006) exchanged messages with Nelson Winter about whether organisations can be considered players, and Hodgson's objection to considering organisations as "essentially the same as individuals or players" (p. 20). Underneath these objections of OIE theorists lies a legitimate objection to the transposition to a micro level of unitary, monolithic views about collectives.

But ANT is *antithetical* to monolithic conceptions and to viewing any collective as a homogeneous, single entity. ANT has a local, even atomistic, concern. ANT conceptualises any 'collective' as a relational collective of individual components – which, in turn, are also seen as relational collectives of other, smaller individual components. Such conceptions clearly do not promote monolithic conceptions – on the contrary. What ANT, and the ANT-inspired frameworks in this thesis (sections 8.1 and 8.2), do emphasise is the *organised* and *collective* nature of organisations, organisational actions and organisational achievements. While ANT was considered as 'atomistic' (above), it can also be considered as 'holistic'. Organisational achievements are not reducible to independent achievements of the individual components. Organisational objectives are not linearly reducible to either the objectives of one

particular actor or the mere aggregation of independent individual objectives. In empirical organisational analysis (and the case study in this thesis illustrates this, e.g., as regards the SSC), it is meaningful to conceptualise the achievements, limitations and objectives of a particular *collective* entity.

The contribution to OIE is even more distinctive as regards the consideration of *non-human* actors. As documented in the case study and reflected in the model, techniques as ERPs have a (contingent) capacity to produce effects (see section 3.2) – or repercussions, as suggested in chapter 7, to reflect the non-linear, indirect and contingent nature of ‘effects’ in organisational life. Therefore, ERPs have power and can be considered as actors – indeed, powerful actors, capable of contributing to significant organisational achievements within actor-networks. Within this OIE framework of rule-based action, non-human actors contribute to rule acceptance. Rule acceptance is promoted by the non-human actors carrying embedded rules and by being drawn upon by other actors in their activities (i.e., by their function as ‘productive’ technologies, in the mainstream sense – see section 3.3); chapter 7 extensively discussed and exemplified various mechanisms through which such repercussions may eventuate (see, in particular, figure 7.1). The promotion of rule acceptance contributes to the Foucauldian sense of ‘productive’, in as much as it contributes to influence the other actors of the network and, in particular, to influence human actors. As Foucault put it, in a metaphorical way, technologies, as non-human actors, ‘produce’ subjected subjects (see section 3.3 and the discussion in subsection 3.3.7 in particular).

Finally, non-human actors may also directly enact rules themselves. While this direct rule enactment by non-human actors is not in line with OIE typical concerns, it should nonetheless be considered, for several reasons. First, rule enactment by non-

human actors often corresponds to a redefinition of agency, in particular through the reduction of the scope of potential human agency – an important concern of OIE. Second, rule enactment by non-human actors has important power repercussions in the organisation – a core topic of OIE (see section 2.4). Third, occurrences at the realm of action, in particular as these occurrences are *repeated*, may end up by influencing structures. In particular, routinisation and institutionalisation processes may develop among human actors (individual and collective) over the course of socio-technical relations established within the actor-network. Indeed, routinisation may directly involve non-human actors, as elements involved in the *performative* and *ostensive* dimensions of routines (e.g., by SAP being a part of accounting routines). In addition, institutionalisation may also directly involve non-human actors, as elements to which institutions refer (e.g., the presence of SAP may become taken-for-granted by organisational actors, because it achieved an *Obligatory Passage Point* status and became inevitable in daily organisational life – see figure 8.1). And processes of routinisation and institutionalisation are, beyond doubts, main concerns of OIE.

However, it should be acknowledged that, in spite of these remarks on points of convergence between OIE and ANT, they are only a starting point for further work on integrating these theoretical strands, as discussed in section 9.3.

9.2 LIMITATIONS

This section aggregates research limitations in three major types. The first subsection analyses research design limitations. The second subsection analyses theoretical development limitations. The third subsection discusses several limitations related to the specific empirical setting of the case study organisation; it identifies

potential research avenues based on this organisation which either might have been pursued with greater depth, were not pursued or were pursued but not included in this final version.

9.2.1 RESEARCH DESIGN LIMITATIONS

Several limitations of this work are related to its research design (chapter 4). First, the empirical work is a *single case study* and therefore the analysis and conclusions based on the empirical interpretation lack statistical generalisability (Yin, 2009). However, as discussed in section 4.1, an objective of case study research may be ‘theoretical generalisability’ (Scapens, 1990, p. 270). This case study had a strong theoretical basis, the analysis was theoretically structured and included a comparison with another study adopting a similar theoretical approach, and the contributions were built on extant theoretical models (as synthesised in chapters 8 and 9). Therefore, it is believed that this study has potential theoretical generalisability.

A further limitation concerns the important *retrospective component* of this research, in addition to the longitudinal component, since the relevant research temporal scope reached substantially further back in time than the start of the fieldwork (see subsection 4.2.1). This significant temporal gap increases the risk that (past) organisational events become ‘black boxed’, whose *ex-post* understanding is difficult or even impossible. As discussed in subsection 4.2.2, this temporal gap may raise doubts about the reliability of interviewees’ accounts, due to selective memory, forgetfulness or long-term post-rationalisation (e.g., Miles and Huberman, 1994; Christensen, 2005; Silverman, 2005). In addition, some sources of information may become unavailable. A relevant issue in this study was the disappearance of actors from

the network. People who used to work in the ‘before-SSC’ large local accounting teams could provide meaningful insights. But most of them have left the organisation actor-network – and therefore are beyond the researcher’s own actor-network. A hypothetical Herculean endeavour of trying to trace those actors, as part of the fieldwork, would also be likely confronted with obstacles related to the confidentiality of former employees’ personal data. Therefore, the ‘black box’ of ‘before-SSC’ local accounting teams cannot be reopened through that potential ‘window’ and through such ‘vistas’.

While the above limitations must be acknowledged, several measures were taken to *mitigate* them: there was extended and repeated contact with many actors with a long company history, and in relevant positions for the research areas of interest; and triangulation among interviewees was significant. Key figures of interviews in subsection 4.2.2 support this argument. More than one third of the interviewees had experience at, or with, IndCo for almost two decades; this percentage approached 50% for twelve years of experience and 90% for six years or more. Interviewing respondents multiple times supported triangulation among interviewees: interviews to respondents who were contacted three or more times (or two or more times) represented 47% (72%) of total interviews. In addition, Ribeiro (2003) noted although ANT recommends ‘following the actors’, the focus should be on “the collection of the ‘traces’ they leave behind them” (p. 155), such as “material traces” and “memories about events” (p. 156) - in particular, “traces left *on others’ memory*” (p. 157, emphasis in the original). Both research methods were pursued to address these concerns, as discussed at the start of subsection 4.2.2.

Also related to the retrospective component, it must be recognised that some events date back to more than a decade ago and might be accused of being

technologically and organisationally dated (e.g., the enormous surge in ERP adoption around the year 2000; see Fahy, 2001) and hence with little relevance. However, institutions, rules, routines, interests, power struggles and attempts to create and structurally sustain mechanisms to achieve objectives within organisations as organised networks, all are timeless organisational issues which will continue to emerge in whatever technical environment. Chapman (2005) made the point that although “ERP may now be considered ‘old’ technology”, “to frame it thus is to miss its potential contribution” (p. 4). As other papers on past ERPs events (Dechow and Mouritsen, 2005; Quattrone and Hopper, 2005), this work “based on technical insights” (...) “to develop an understanding of their organizational and social significance” (Chapman, 2005, p. 4). And such type of contribution is not limited to often short-lived particular types of technology.

It is recognised that the fieldwork occurred predominantly at *IndCo’s headquarters*, promoting a greater exposure to (and hence potential bias towards) the perspectives of ‘*central*’ actors, when compared to ‘*local*’ actors’ perspectives. This greater share of time devoted to central actors risks leading to an interpretation written from the point of view of the ‘centre’, rather than the ‘locals’. The significant functional and hierarchical heterogeneity of central respondents promoted insights diversity, but not in terms of the ‘central-local’ balance. However, not only five interviews (and other informal interactions) were indeed carried out at a local level, but there were also 25 interviews with nine ‘now-central’ actors who had previously been ‘local’ actors. In spite of the limitations recognised in subsection 4.2.2 about the influence of their current central position and membership (Munro, 1999), their accounts were particularly useful for the retrospective component of the research, to characterise the ‘local’ level

regarding the past periods in which they were located in the local sites. Finally, the overwhelming majority of respondents had very close contact with local actors, including frequent visits to the various locations (as the researcher witnessed when scheduling interviews). Therefore, central respondents did not merely provide an account of objectives, strategies and actions of central actors, but also the (centrally-perceived) repercussions on the local level, based on their many years of experience of close interaction – including successes, difficulties and failures.

9.2.2 THEORETICAL DEVELOPMENT LIMITATIONS

Three major limitations are acknowledged as regards the theoretical development included in this thesis. Each limitation is discussed next, and each one constitutes a future research avenue, as discussed in the next section.

It is recognised that this work *only scratched the surface of psychological* mechanisms underlying the processes conducive to rule acceptance and enactment. This theoretical limitation is not unrelated with above research design limitations. As noted in section 7.2, there were limited insights about the *process of development* of positive dispositions towards the acceptance of Obligatory Passage Points and embedded rules and controls. This work highlights that institutional theory should also consider rules as actors' cognitive structures, both at an individual and collective level, and the OIE framework highlights two psychological levels in which accepted rules may be located. Additionally, the proposed frameworks depict how various interrelated factors may be conducive to rule acceptance and enactment. However, although this work brings forward the importance of psychological aspects, it is recognised that further contributions from the psychology field are required.

Another limitation concerns the *proposed ANT-inspired OIE model* of rule-based action. As already acknowledged, the model does not fully reflect its underlying dynamic and temporal perspective. Moreover, the model does not incorporate the important component of routines. As already clarified, this absence does not reflect a suggestion that routines may not exist or may be unimportant, but merely reflects the focus on rules and an attempt to simplify an already complex model. However, the absence of routines limits the adoption of this model as an integrative framework.

It should also be acknowledged that scarce theoretical work has been developed towards reconciling or *integrating OIE and ANT*. While this work has highlighted the potential of combining both theoretical strands, and it already explored several intersection areas (e.g., the reflections in section 4.1, and the entire case analysis, discussion and theoretical developments), it is recognised that additional theoretical work is still required.

9.2.3 EMPIRICS-BASED RESEARCH NOT DEVELOPED OR NOT INCLUDED IN THIS THESIS

This section concludes by noting that the present work was limited because various potential research avenues identified in the empirical setting: 1) might have been pursued with greater depth; 2) were not pursued; or 3) were pursued but not included in this final version. Each type of limitation is discussed next.

In any research, there are limitations of the first type, as the research efforts need to be prioritised. An acknowledged instance in this research is related to its temporal focus, which may have paid a relatively minor attention to the 2003-2008 period, when

compared to the 1998-2002 period. Although the core empirical time frame was defined between 1998 and 2008 (see subsection 4.2.1), the instance that the three core analysed innovations had been introduced roughly between 1998 and 2002 required devoting a particular attention to that period, in order to characterise the motivations and expectations underlying those innovations and understand the historically situated nature of ensuing changes. The ensuing period, between 2003 and 2008, was also considered to address the actual repercussions of the innovations, and included the three years of the longitudinal research component. However, it is acknowledged that an even greater focus on this later period might have produced additional insights about less dramatic and disruptive, but more on-going, gradual and incremental changes – and resistance. The perceived potential of additional in-depth research on this period is analysed in the next section.

As regards the second type of limitation, of not pursued research avenues, the clearest example was (not) studying the implementation of the SAP product costing module. The design stage of this project was still ongoing when the fieldwork started and its implementation stage extended for the following two years. As explained in subsection 4.1.4, authorisation to study this project longitudinally, as it was unfolding, was not granted. The ensuing fieldwork focused on other areas, but the topic surfaced at times during the interviews. Several potential research avenues were identified, but not explored in depth, or at all.

Other limitations arose from the need to focus research efforts and the final output, implying the exclusion of research questions and empirical material which were indeed significantly explored during the course of the PhD. Such a research avenue was exploring the *institutional theory paradox of embedded agency*, in particular through the

adoption and development of Seo and Creed's (2002) framework. Considerable work was carried out on this topic, including the discussion of existing contradictions and the institutional embeddedness of key actors, and culminating in the *integration of Seo and Creed's (2002) and Clegg's (1989) frameworks* (the latter of which revised in section 8.1) within one single framework. Nonetheless, some additional work was still needed, and it was decided not to further pursue such research avenue, hence limiting (but focusing) the theoretical scope of the research.

Another research avenue not fully pursued was the *role of consultants*. In the original research question, consultants were, alongside ERP systems, a crucial research topic. While the present work already reflects some research efforts in this area, in particular as regard their role in the SAP FI project (see subsection 6.1.3), consultants' role as regards other projects and their role on a more on-going basis, beyond particular projects, was not very researched. In particular, the SSC project was heavily supported by a consultancy firm not contacted during the fieldwork. This is another limitation of this research.

A potentially relevant factor for the explanation of interests and accepted and enacted rules was IndCo's *performance measurement system*, in particular concerning local actors (e.g., Otley, 1999 and 2003). This topic was approached several times with several interviewees, both at a central and at a local level, and it was also discussed with one of the consultants, beyond the scope of this organisation. Obtained information suggested the hypothesis that some features of the performance measurement system might affect tensions and divergences between the interests of local actors. These included the issues of adopting financial and non-financial measures, and local and organisation-wide levels of performance measurement (and related issues, such as

compensation). However, the researcher perceived that exploring this (very wide and complex) topic would expand the scope of the research even further (and excessively), imply significant dispersion of efforts and, in addition, require access to the Human Resources department, which had never been approached. Therefore, the potentially relevant explanatory factor of performance measurement was not included in this thesis - and this may be considered a limitation.

Not having pursued the above issues may be considered a limitation of the current work vis-à-vis the wider research potential of the empirical setting. Therefore, some of those issues are included as future research avenues, in the next section.

9.3 AVENUES FOR FUTURE RESEARCH

Many of the avenues for future research identified next derive from the limitations acknowledged in the previous section.

9.3.1 FURTHER THEORETICAL DEVELOPMENT BASED ON THE THESIS THEORETICAL ANALYSES AND CONTRIBUTIONS

The first research avenue concerns the development of a *research programme* to support and strengthen theoretical generalisation and external validity (Modell, 2005; Ribeiro and Scapens, 2006; Scapens, 1990; Yin, 2009). The frameworks developed in this thesis constitute both an outcome (of this research) and a starting point. It is hoped that *additional case studies* deploying the proposed frameworks can provide additional empirical support and/or theoretical corrections, refinements and complements.

Future work may involve strengthening the proposed frameworks with further insights from the *field of psychology*. As acknowledged in the previous section, the proposed frameworks highlighted the importance of psychological aspects but only scratched the surface of a very complex area. Indeed, a greater contribution from psychology may be a useful complement to sociology-based contributions which are salient in institutional theory, even within OIE. And by providing a better understanding of agency, it may contribute to overcome the charge traditionally directed against institutional theory, about its neglect of agency.

It should be noted that, consistently with the notion of collective actors, typical notions from the psychology field may be usefully explored at a collective level. One clear example is the recent work of Fiedler and Welppe (2010), studying how dimensions of organisational structure (in particular, codification of information) influence *organisational* memory. This research avenue may also contribute to explore how *codified rules* (a particular type of information) may become part of actors' cognitive structures, and hence further explore the discussion on *rules* addressed in this thesis.

It is suggested to develop the combination, cross-fertilisation and, potentially, *integration of ANT and OIE*, since the steps taken in this work are still preliminary (see previous section). Combination between ANT and another strand of institutional theory, NIS, has been suggested (Hopper and Major, 2007; Lounsbury, 2008; Rautiainen, 2009) and, significantly, Rautiainen (2009) drew on OIE in reconciling NIS and ANT. Rautiainen (2009, p. 1) argued that “the concept of agency – making and re-making the rules and routines in an organisation – is the bridge” between ANT and NIS. When compared to NIS, OIE's more micro level focus and greater attention to actors and political processes anticipates that the gap to be bridged between ANT and OIE is

narrower. It is therefore suggested that, upon consideration of their underlying assumptions (Hopper and Major, 2007; see section 4.1), combining, cross-fertilising and, potentially, integrating ANT and OIE is a viable and rewarding research path.

A specific research task ahead is *bridging the frameworks proposed* in this work. This task will reside in theoretically exploring the similarities and complementarities of the revised model of ‘Circuits of Power’ and the OIE model of rule-based action, eventually producing a more integrative framework. Such efforts are likely to provide an important contribution towards the above suggested wider research path of integrating OIE and ANT.

Finally, a number of related topics concern ontological issues about actors and structures which may be developed beyond this thesis. Volkoff *et al.* (2007) argued that ANT, by considering technology as a non-human actor, conflated agency and structure and therefore does not adequately depict the structural effects of technology and how it can mediate change. On the other hand, they claimed that ANT still privileged human actors, given its focus on negotiation, and that in ANT “[t]he technology is viewed as a receptacle where an actor’s perspective can be inscribed and frozen” (p. 834). Although Volkoff *et al.* expressed greater affinity to ANT when compared to behavioural, institutional or structuration theories, they suggested the alternative of critical realism. Sections 7.1 and 7.2 drew on Volkoff *et al.*’s insights, within the wider ANT framework structuring the chapter, and suggested developments to their approach. Overall, significant compatibility between both approaches emerged from this thesis, but it is hypothesised that further work drawing more extensively on critical realism lenses, exclusively or in combination with other lenses, may be fruitful.

Section 8.1 endorsed the concept of socio-technical *relations* between mutually dependent *human* and *technological actors*. It was noted that some ANT authors (e.g., Wagner *et al.*, 2006) proposed the notion of socio-technical *actors*. This alternative notion brings the heterogeneity of the network into the ontological conceptualisation of the individual components of the networks. It finds some support in the ANT consideration that the network is a hybrid, a quasi-object (Quattrone and Hopper, 2006; see section 3.4) and that each network is both constituted by other networks and is a part of other networks. Therefore, conceiving actors as *socio-technical* is an alternative conceptualisation (*not* endorsed in this thesis, and opposed to Volkoff *et al.*'s, 2007 critical realist perspective deployed in chapter 7) which may be considered in future work.

9.3.2 FURTHER THEORETICAL DEVELOPMENT BASED ON THE EMPIRICAL SETTING OF THE THESIS

A number of future research avenues are directly related to this *particular empirical setting*, although in *very different theoretical domains*. These research avenues may build on the insights generated in the already conducted fieldwork (though potentially not present in this thesis) and, in some cases, on additional future fieldwork. The previous section identified research areas which: 1) might have been pursued with greater depth; 2) were not pursued; or 3) were pursued but not included in this final version. Each research area and its potential to generate future contributions are now discussed.

The *first* acknowledged limitation concerned a relatively minor *attention to the 2003-2008 period*, when compared to the 1998-2002 period. A greater focus in the later period might have highlighted less dramatic and disruptive, but more on-going, gradual

and incremental changes. It would highlight repercussions, not from major innovations in techniques, but from fine-tuning those techniques and their usage. Importantly, the gradual nature of these changes may have promoted these to have taken a more “natural” appearance (see the last contributions in section 7.2). On the other hand, a greater focus on the later period might further illuminate more subtle and persistent processes of *resistance*. At the time of fieldwork, divergence, resistance and even rebellion still occurred at a local level. Central and local actors alike acknowledged that some issues still remained to be addressed, or were only recently solved. Further exploring the long term perspective of the original research question would further contribute to highlight that organisational work towards greater integration, visibility, control and power, including changes in techniques of discipline and production, “is an *unending process* and it is produced concurrently and episodically”, as Dechow and Mouritsen (2005, p. 691) argued by focusing on ERPs.

As regards future work in areas *not* pursued (see the second type of limitations mentioned above), a clear example concerns the implementation of the *SAP product costing module*. The obtained empirical insights suggested that this new SAP module could be conceptualised as *another innovation introduced in IndCo’s circuits of power*, with significant similarities to (and some differences from) the SAP FI innovation. Further research on this additional innovation may build on and expand the present work. In addition, several respondents from different functional areas and hierarchical levels expressed very high expectations about an ambioned change on the *role of management accountants* at a plant level (labelled as ‘plant controllers’ within the organisation). It was hoped and expected that plant controllers would start focusing mainly on qualitative analysis and business support, instead of transactional activities.

Pursuing this research avenue can provide significant contributions in a topic attracting recurrent attention in the literature (e.g., Burns and Baldvinsdottir, 2005; Granlund and Lukka, 1997; Jack and Kholeif, 2008; Järvenpää, 2007; Scapens and Jazayeri, 2003).

As regards future work on avenues which were *pursued but not included* in this work (the third type of limitations identified above), one area is exploring the puzzle depicted in literature of why the introduction of ERP systems seemed to produce only “*moderate impacts*” on management accounting, and whether this was “a lag or permanent outcome” (Granlund and Malmi, 2002, p. 299, emphasis added). Early fieldwork focused on this issue, when evaluating whether the case organisation was actually a suitable empirical setting for the original research question, as discussed in section 4.1. Indeed, the initial concern with *long-term* interactions (between an ERP system, the consultants which implemented it and management accounting and control) reflected the “moderate impacts” puzzle. The setting was considered to be particularly adequate: the initial SAP cost accounting components were introduced in 1999 but integrated cost accounting only emerged in 2005 with the SAP product costing module, and its implementation only finished around 2007. Until then, there was scarce change in cost accounting at plant level. Oliveira (2007b) explored the technical, organisational and political interplays underlying (and justifying) the long process towards integrated cost accounting. Part of the explanation relied in path-dependency, a recurrent concept in institutional theory, which was applied to technical and organisational aspects. In addition, it also regarded path-dependency beyond the usual negative connotation of lock-ins constraining developments. It added a positive perspective to path-dependency, as pointing the ways towards further developments: because ‘something’ happened before, ‘something else’ becomes possible. This vision is briefly reflected in this thesis,

in the insights about the mutual dependencies of development of innovations: initially constraining (at an early stage of development) but later reinforcing (in later stages of development) (see section 7.1). Future work entails finalising these research topics.

Another major research area not included in this thesis concerns the organisation *performance measurement system*, in particular of local actors. As mentioned in the previous section, the insights obtained on this topic highlighted its potential relevance. Future work may yield very important contributions, but it will also require significant additional fieldwork.

Another major research avenue consists of addressing the *institutional theory paradox of embedded agency* (Seo and Creed, 2002). As mentioned in the previous section, this avenue was pursued but not completed for this work – largely due to the need to focus and restrict the overall dimension of the thesis. Early work has been presented in Oliveira (2007a), but was later substantially developed. One preliminary insight was introduced in 7.1.2.1, but its development was left for future work. Finishing this research avenue might require only limited additional, focused fieldwork. The main task would be to complete extant work-in-progress, which analyses contradictions within the organisation and the institutional embeddedness of key actors, mechanisms of creating awareness about contradictions and alternatives, and culminates in the integration of the frameworks of Seo and Creed (2002) and Clegg (1989) (in its revised form, in section 8.1) within one single framework.

One potential approach to studying the paradox of embedded agency would draw on Seal and Mattimoe's (2007) proposal of *routinisation of change*. These authors drew on Schumpeter's concept of 'creative destruction' to explain how change can

become routine, including at a company-level of analysis. In IndCo, the role of some *organisation structures and policies supported this view*. Some of these organisational structures were briefly mentioned in this thesis, such as the industrial benchmarking (INDBEST) department and the Business Processes and Organisation (BPO) department (see section 7.0). These departments, along with particular initiatives (e.g., the SSC initiative to foster the generation of new ideas, as briefly mentioned at the end of subsection 7.1.2) and human resources policies not mentioned in this work, structurally embedded a permanent focus on change within the organisational fabric. These organisational features intend to contribute to a permanent reflexivity, both at an individual and at a collective level. I.e., they intended, and apparently achieved, to routinise change.

These organisational structures and processes have high organisational visibility and are under close monitoring. As such, the actors involved in them have strong incentives to continuously reflect over existing arrangements, promoting an awareness which counters the embeddedness advocated by traditional institutional theorists. As such, it is possible that these mechanisms, introduced in the circuit of systems integration (Clegg, 1989), may play a significant role in explaining the institutional paradox of embedded agency, without most mechanisms suggested by Seo and Creed (2002).

This line of reasoning should *not* be *overextended*, though. In fact, the consideration that these initiatives intended to promote change, including in prevailing rules, should not neglect that there are *different levels of rules* (Clegg, 1975). Some rules are surface rules, while others correspond to deeper rules – as those in the ‘deep psychological realm’ that corresponds to institutionalised rules (see model in section

8.2). Although interviewees suggested that all rules can potentially be questioned, it should not be taken for granted that *institutionalised* rules are actually identified and questioned by actors and then potential proposals for change are actually further developed. It is likely that institutionalised rules, and in particular the wider premises of ‘forms of life’, may lie beyond the reach of such embedded mechanisms, and routinised change may be restricted to more surface issues, leaving the deeper (and more fundamental) issues unchallenged. In addition to institutional literature, various strands of the power literature analysed in chapter 3 can contribute to this research avenue (e.g. Bachrach and Baratz, 1962, 1963 and 1975 and the ‘community power’ debate; Lukes, 2005 and the ‘third dimension’ of power; Foucault, 1975/1977, 1980, 1988 and the notion of a ‘constituted subject’; Hardy and Leiba-O’Sullivan, 1998 and the ‘fourth dimension’ of power; Clegg, 1989 and the integrated circuits of power). Pursuing these research avenues and hypotheses is left for future work.

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APPENDIX

QUOTATIONS REMOVED FROM THE MAIN TEXT

Quotation #1, from 5.4.4 “Circuit of social integration” - 5.4.4.2 Organizational conditions – processes and structures”, in page 352:

“There were different ways to use the systems. It depended a lot from who was responsible for the plant planning, because the tools people had were exactly the same (...). There was a great discrepancy in the methods of each plant. There were those who planned production twice a day, and therefore had the delivery dates one or two days later after the order arrival, at the most. But there were also other plants which did that sporadically, once a week, or a bit randomly, when the person had time. (...) And there was another important factor: the type of clients and the type of products of each plant. There are plants with (...) few clients and large volumes; those plants have a low tradition in that daily planning, because they don’t need it that much. But the main [factor] was actually the planner’s will and way of working. Regardless of all other considerations, they could all work in the same way (...) and confirm orders everyday, but they didn’t do it.

Meetings were organized with the planners of the various plants, attempting to share experiences and uniformise work methods. But they always ended up by not producing great results, because planners always kept working the way they were used to, the way they knew and they thought was best adapted to their case.

There were still a few attempts, mainly due to the commercial units, those which put a stronger pressure [towards uniformity]. They had relations with 7 or 8 plants; and there were those plants they called ‘well behaved’, which confirmed in a day, while other plants took 3 or 4 days. And the commercial units did not really understand these situations, and it was them who pushed the uniformisation attempt. But then, it was always blocked by some reason: or ‘because it was not possible, because that plant doesn’t work that way’; or ‘because the planner has no time, because in that plant, the planner also has additional responsibilities, and so he cannot run the planning everyday’... There were always a number of reasons and impediments, and it was never achieved that all the plants worked exactly in the same way”.

Quotation #2, from 6.1.6 “Re-examining motivations for the design options and the role of the accounting and finance area” - 6.1.6.2 “SAP FI initial configuration as a result of strategically-phased mobilisation efforts?”, in page 412:

“Probably, those decisions [which led to preserve previous configurations] are not as coordinated as you are suggesting. I don’t know if it is very normal that the Executive Committee deeply reflects about the chart of accounts [voice suggesting slight irony]. There are people in the company who have a greater technical knowledge of those areas; perhaps a consultant or a systems integrator may help, make a proposal, justify it, it looks good, and we move one. It is not obligatory to reflect about all the systems, at all times. As time advances, that will happen. But I would NOT [emphasis] say that admitting diverse charts of accounts was a strategic, deliberate option, in the sense of advocating autonomy... It was not, certainly. Perhaps, at the time, [it was thought] ‘making a common chart of accounts today will cause a tremendous mess. So, the best is to leave it, for now...’. Isn’t it? (...)

The issue of resistance to change, sometimes, is expressed through arguments which are valid. Maybe the strongest of all is the loss of [past] references. People are always afraid to... [interruption] They say they accept change, easily, etc... but [they add that] ‘it’s necessary to safeguard the references’. And that’s a very strong way to resist to change. It’s not easy to argue that ‘No, what is good, is to loose references, rethink everything from the start’. So, that leads, many times, to a more cautious management, more prudent, more conservative, which does not take so vigorous steps towards change, so that some references are maintained.

I recall that the debates about Information Systems were: ‘What we need is that some things are common. After that, what happens in the middle... [it’s not important]. [Provided that] sales figures, EBITDA, etc... [are the same, that’s enough]. Beyond this, if people have different approaches, it’s not so critical. In the sense of, always, trying to provide some space, some autonomy, and maintain, not change everything at the same time. I don’t know if it’s the best way, but that’s life’.

Quotation #3, from 7.2.4 “Repercussions of the network of innovations in the circuit of social integration - preliminary contributions - 7.2.4.2 “A first contribution: an empirical validation of Ribeiro’s (2003) hypotheses”, in page 559:

“For someone who is looking from outside, I think it is quite visible: information systems act a lot like a striker, in terms of acculturation to ZZZ’s methodologies”. “When I say ‘implementing SAP’, it’s mostly in the perspective of implementing processes. ‘Let’s format these people to our way of working’.

If it weren’t for the [SAP] systems [implemented in a recently acquired plant], it would have never been possible for the Spanish commercial unit to work with that plant the way they work today. The Spanish commercial [unit] is very aggressive, (...) it has people focused on analysing what is going on in the plant in terms of the [production] process. (...) SAP allows them to be constantly calling the plant, asking ‘Where is this product? I see in the system that it is still in production (...) You confirmed [the order] to day Y and I still don’t have it’. This aggressiveness and this control are only possible with this type of implementation. (...).

Acculturation, in the sense of... For example, in ZZZ, commercial units attribute a great deal of importance to the [delivery] date confirmed to the client. There is a culture of ‘I place my order, I want to know when it will be produced’. This plant did not have that culture. And all ZZZ works this way. (...) The system, by itself, by itself, imposes that when someone makes an order, there is a confirmed [delivery] date. And that confirmed date is then controlled (...)

In the production area, ZZZ wants the plants to define the production cycle. [Details omitted to preserve confidentiality]. One of the things we do – and which has nothing to do with the system, but the system allows doing – is that the IS team already has that defined strategy. (...) ‘You will have to define what we call block planning [details omitted]’ By doing this [definition of the production cycle], we are immediately conditioning all the plant planning. And they don’t even have the chance to say they don’t want it. That is imposed; and it is imposed by the systems [team], which is a curious thing. They impose, but then of course there is the support of all the structure behind. But the systems [team], by themselves, impose that way of working, because it’s the way that all [emphasis] the company works. That is a way to acculturate the way of working of the entire company.”

Quotation #4, from 7.2.5 “Repercussions of the network of innovations in the circuit of social integration – main theoretical contributions” - 7.2.5.6 “Minimise additional work for local actors’ compliance – and increase work for noncompliance”, in page 583:

Respondent: “A new product, which has never been made... First, you have to create the code. If there is no code, there is no order. [It can also happen] that there is a code but for some reason there is no technical list [the BOM], because it does not fit the rules [that creates the BOMs]. The order is recorded, but it has no confirmed date. Full stop. (...) It is not planned, it has no confirmed date. (...)”

Researcher: For someone who wants to quickly deliver an order to the client, it is certainly a problem...

Respondent: Someone who wants to quickly deliver the order to the client, calls the plant and the [machine] will do what they ask and loads a truck. And here goes a [manual] shipping order...

Researcher: I.e., if the order cannot fit in the system entirely, the order will stay completely outside the system...

Respondent: I never saw a truck not leaving a plant because it didn’t have a shipping order created by the system. It may have waited a bit longer, but at the end of half an hour ‘Forget it, make the paper and go’.

Researcher: That is one of those typical situations which will generate information inconsistencies...

Respondent: Of course, and people have indications to avoid all this. Because we know that creates a number of problems to retrieve information. To retrieve a shipping order, is a real pain. We can’t create an invoice; stock control requires turnarounds; we have to keep all the tags and then read all the tags... A complete mess! [Operational] people, because they know the trouble of retrieving all the information a posteriori, think twice before they do such a thing.

Researcher: But when the pressure and need is high, ‘here it goes’...

Respondent: I don’t have the faintest doubt! [Laughter].”